TEILHARD DE CHARDIN AND THE VISION OF THE SCIENTIFIC STATE:

A CRITICAL EVALUATION

by

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We have carefully read the dissertation entitled Teilhard de Chardin and the Vision of the Scientific State: A Critical Evaluation submitted by Donald W. Hopps in partial fulfillment of the requirements of the degree of Doctor of Philosophy and recommend its acceptance. In support of this recommendation we present the following joint statement of evaluation to be filed with the dissertation.

In recent decades Teilhard de Chardin has come to be recognized as one of the seminal minds of this century. His writings, which have proved to be extraordinarily exciting and controversial, contain much with important political implications, but this aspect of his thought has received little attention in published commentaries. In attempting to remedy this lack, Mr. Hopps has undertaken an exceptionally difficult task. Priest and scientist, but even more a mystic, Teilhard's language was as often poetic as mundane, and his approach to social and political affairs, and to history, was from a cosmology and theology founded largely in an evolutionary biology. To order and render comprehensible the political and moral aspects of such far-reaching and often esoteric philosophy, as well as critically to evaluate it, is so difficult a task that it is no wonder Hopps's effort is hardly an unqualified success. His summary, interpretation, and criticism of Teilhard's views seem to suffer from an inadequate objectivity and distance; Hopps did not sufficiently escape being captured by the power of his subject. Consequently his principal criticism of Teilhard--that he overlooked the value of relativity in his devotion to evolution--remains rather frustratingly abstract and its implications for political science inadequately developed. Nevertheless, Hopps has combed Teilhard's writings, in English translation, and also used a number of biographical materials and commentaries, drawing from these the theme that evolution finds its culmination in modern science, and that an increasingly integrated and humanized science must provide the political leadership for the future. Teilhard's argument is reasonably clearly developed, and the elitist implications of the evolutionary thesis noted and questioned. Despite its difficulties, the dissertation manifests good scholarship, and is an interesting contribution to political thought.

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INTRODUCTION

This paper is an examination of the thought of Pierre Teilhard de Chardin from the perspective of political theory. As such this paper is, in a sense, a double introduction. To those who are familiar with the commentaries on Teilhard, it represents a new departure in the exploration of the implications of his thinking. To those who are conversent with political thought in this century, it represents an addition to the body of thought which must be considered to understand the full range of insight opened to us during this period. Because this paper is directed, at least in part, to a group who may be unfamiliar with Teilhard a brief biographical note is in order.

Teilhard was born in 1881. His interest in both the scientific study of man and the religious life began in his boyhood. His scientific career began in earnest when he became a student of the Abbé Henri Breuil, the discoverer and expositor of the Cro-Magnon man, at the turn of the century. By 1912, Teilhard had become well enough known in a paleantologist to be asked to participate in the study of Piltdown man. 1914 and World War I brought an abrupt end to this early part of his career.

During World War I Teilhard served in the French Army as a medical aid. The War seems to have been a period where Teilhard's thinking on the modern world, Christ and science crystallized. As his thoughts took shape, their impact on his personality grew. By the end of the war, the development of his ideas into a synthesis of evolutionary thought and their propagation had become his vocation.

The 1920's saw Teilhard's standing in scientific circles grow at the same time his notriety in religious circles was increasing. His advanced thinking on theological matters frightened his superiors; the following he was developing in intellectual circles was seen as a positive danger. In

1926, Teilhard was told to leave France for China.

In China, he joined the study team headed by Dr. Davidson Black. His work with this group proved to be the highpoint of his scientific career. Teilhard was responsible for much of the exposition of the discovery known as the Peking Man. By 1937, he was widely recognized as an outstanding scientist,and, despite his exile, as a leader in French intellectual circles. At this point, galvanized by the events leading up to World War II, he wrote his master-work-The Phenomenon of Man. This work, as well as most of the remainder of his philosophic writings, enjoyed a wide but surrepticious circulation among his friends and intellectual confidants. Trapped in China during World War II, he continued his propaganda efforts on behalf of his unique theory of evolution.

At the end of World War II, he returned to France a lion of the Catholic avant garde and an even greater thorn in the side of the ecclesiastical powers. Having been repeatedly enjoined from propagating his views on religion and science throughout his career, he saw The Phenomenon of Man formally banned by Rome in 1948. However, Teilhard continued to grow in stature and influence among those familiar with him until his death in New York in 1955. Since 1955, most of his work has been published.

Although Teilhard's views were certainly no secret before 1955, the fact that widespread dissemination did not occur until after that date means adequate critical treatment of his thinking did not appear until quite recently. Despite the great attention he has received since 1955, time has not allowed for the development of a mature, balanced, and tested body of commentary on him. This lack of firm supporting material effects any scholarly attempt to deal with Teilhard. This paper is no exception to the rule.

Because Teilhard's thought is just beginning to be explored, the research problem I faced was not complicated. I had to perform the basic task of defining what Teilhard said about politics. Rather than having to refine concepts or to fill in detail within a framework worked out by other scholars, I had to find and present Teilhard's general conception of political life. The approach to this almost primitive problem is necessarily simple. Because I had no guide to work from, I was forced to examine what Teilhard said directly and to order the ideas I considered to be relevent in a structure which did not betray, but rather heightened, the effect of his synthesis.

In these days of elaborate methodologies, such a straightforward approach to a problem seems brutal or puerile. It seems almost a cheat to say one has done his work simply by going to the library and reading methodically through the works of one man. The lack of a long bibliography of secondary sources becomes an embarrassment. But the fact remains Teilhard's work was the only resource open to me, and reading was the only way that I could elicit the information to answer the question before me. As for the mode of organizing the information obtained, I was enjoined from novelty here by Teilhard himself. As one can ascertain from reading the body of this work, Teilhard imposes a rigorous design of his own on his thought. To fail to report his thought in this form would, I believe, (be a disservice to it.)

Finally, Teilhard's thinking is highly complex and often times confusing. This complexity would make the use of a more sophisticated methodology more risky in any case; without benefit of the work of other scholars, it would make it foolhardy. Moreover, at this point, the value of the insight that may possibly be developed by a more elaborate methodology is negligable. The groundwork must be laid first. Given all these factors, then, the straightforward reliance on primary sources and my own native ability as interpreter seemed to me to be the most appropriate course to follow in pursuing this study.

Chapter I

> "The various regions, nations, social groupings, have each their particular apostles.
>
> And I, Lord God, for my (very lowly) part, would wish to be the apostle--and, if I dare say so, the evangelist--of your Christ In The Universe.
>
> For you gave me the gift of sensing, beneath the incoherence of the surface, the deep, living unity which your grace has mercifully thrown over our heart breaking plurality.
>
> The universality of your divine magnetism, and the intrinsic value of our human undertakings: this, my God, is the twofold truth you have shown me, and I am burning to spread abroad the knowledge of it and to bring it fully into effect."[1]

In many respects it is the work of the analyst to separate ideas from the context of a general body of thought, or from a man, or from the times in which the ideas were first set down. The object is to see certain ideas and relationships more clearly. Paradoxically, if the analyst is to carry off his work with some success, he must be more attentive to the unity of the subject before him. He must take care not to do violence to the integrity of the very ideas and relationships he wishes to study. Ideally an analyst will be directed to the ideas and relationships essential to the understanding of the entire corpus of the subject to which he is addressing himself by his own insight. The insights directing an analyst to the points he lays hold of, then, are of singular importance to both the understanding of the analysis he makes and the justification for his analysis. It is my conviction that it ought not be done off stage.

My own introduction to the writings of Teilhard de Chardin was a casual one. Goaded into a quick reading of the Phenomenon of Man by a student argument over philosophy, I found it most interesting. Yet I believed it dealt with matters remote from my own concerns, especially my concern with politics, and so left Teilhard aside. This initial view has changed drastically. Several years later I had the occasion to address the writings of Teilhard more seriously. It was at this time that I became quite excited by them. In reading Teilhard more closely, it became clear to me that he was addressing in a most cogent way issues I was deeply interested in. He was addressing issues central to political life.

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[1] Pierre Teilhard de Chardin, Hymn of the Universe (New York: Harper and Row, 1965), pp. 151-152.

Political life is involvement with political community. Political community, or the State, is the fundamental social organization; it is the order in which we relate to one another, establish institutions to maintain these relationships, and to organize activity for the common good. The problem this community presents us is, simply, to define it. Having identified it as an essential aspect of our lives together, we set out to understand it and thus generate political thinking. The more I explore the writings of Teilhard, the more apparent it becomes that it is this very same interest which focuses his thinking. He directs himself to the examination of our relations with one another on different levels in order to prescribe for us a radically different way of understanding these relationships and, through a new understanding of them, to effect profound changes in the structure of these relationships. In light of this, I have chosen to address the thought of Teilhard de Chardin from the standpoint of political theory. I am convinced that this avenue, though novel, will be fruitful.

Submerged in the vivid credo, which began this chapter, are two revealing statements of the man himself. He calls himself an "apostle" and then an "evangelist"; at the end, he characterizes himself as "burning to spread abroad the knowledge of it and to bring it fully into effect." These words are typically emphatic; the ideas they contain are typically compressed.

Teilhard declares truth and action are one; knowledge itself is more than known, it is willed. It is not enough for Teilhard to limn for his readers the truth for contemplation; the integration of thought and action Teilhard perceives must be made inside the person. Teilhard makes this personal commitment for himself in taking the title of "apostle". For Teilhard, to know the twofold truth is to give one's life to it, to live in the light of it. But Teilhard goes beyond even this point in declaring himself an "evangelist." Not only does he accept the truth as opening up a way of life for him, but he also makes the truth his vocation. Teilhard dedicates his life to making the truth live for others. Thus Teilhard makes of himself a living model of the truth he perceives; Teilhard desires to be the image and the vehicle of the dynamic being of truth itself, Christ.

> "And as there is nothing more personal in a being than his will, I merge myself, in a sense, through my heart, with the very heart of God...
>
> The soul does not pause to relish this communion, nor does it lose sight of the material end of its action; for it is wedded to a creative effort. The will to succeed, a certain passionate delight in the work to be done, form an integral part of our creaturely fidelity."[2]

I contend the three dimensional integration Teilhard makes of himself, his conception of truth, and of action establishes a character which dominates Teilhard's writings. Teilhard's work is molded by his conception of his mission; every word he wrote in light of it carries the weight of his special calling. "...I do believe that I can see something, and I would like that something to be seen. You can't imagine the intensity of desire I sometimes feel in this connection..."[3]

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[2] Piere Teilhard de Chardin, The Divine Milieu (New York: Harper and Row, 1960) pp. 62-63.

The integration of thought and action and the implications of mission, first, and perhaps most forcefully, reach the reader in the impact of Teilhard's style. Like everything else about Teilhard, it must be taken seriously. Style is more than a mirror image of Teilhard, it is integral to his mission.

Teilhard manages to coordinate masterfully the diverse qualities demanded by the standards of poetry, prose, and scientific exposition. Like a champion crew in racing trim, Teilhard's writings give one a sensation of grace, power, and motion at one. This sensation of motion is a special one. It touches on a distinct impression this reader has. I feel his writing moves from a center outward enveloping all the concepts he elicits, and then incorporating these concepts into itself so forcefully that perception is overwhelmed, and only the vague sense that this synthesis is happening is left of our original perception of the union. In so far as this is true, the reader is impressed immediately with the one proposition Teilhard considers basic to his thinking, "All around us, as far as the eye can see, the universe holds together, and only one way of considering it is really possible, that is, to take it as a whole, in one piece."[4] But poetic dramatization has its price. Ideas lose the perspective that careful, if more pedestrian, structuring and qualification would give them.

Teilhard's style has two facets which should be examined closely. The first is the fact of a combination of different modes of thinking, the second is the peculiar way in which he makes this combination. As Theodosius Dobzhansky puts it:

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[3] Pierre Teilhard do Chardin, The Making of a Mind; Letters from a Soldier-Priest, 1914-1919, (New York: Harper and Row, 1961) p. 269.

[4] Pierre Teilhard do Chardin; Phenomenon of Man, (New York: Harper and Row, 1959) p. 44.

> "What made Teilhard's views novel and controversial was that he refused to pattern his thinking to fit it into any one of the recognized academic or intellectual categories. He was too much a scientist to set forth his conclusions in a manner wholly to please the theologians, and too much a theologian to make himself altogether a scientist. He was too much a mystic to be convincing to those who demand verifiable evidence for every idea, and too familiar with the canons of scientific procedure to give free rein to his prophetic visions. He was a poet who often wrote in symbols and metaphors..."[5]

Again, it must be emphasized that these factors are significant. They are not superficial aspects of Teilhardian thought comprehended by a passing acknowledgment of the poetic quality of Teilhard's writing. Yet, because Teilhard is so successful as a poet, the reader is inclined to mark the beauty of the writing while missing the fact that a synthesis has been effected by this tool. The poetic motion obscures its own effects. This grace is ultimately so powerful the peculiar combination of modes of thought which Teilhard weaves goes as unnoticed as the sounds of the various instruments making up a symphony orchestra. These combinations of mode are appropriate to the vision from which they emanate.

Vision is the light at the center, the heart which pumps life into the work. Teilhard opens the Phenomenon of Man by saying,

> "This work may be summed up as an attempt to see and to show what happens to man, and what conclusions are forced upon us, when he is placed fairly and squarely within the framework of phenomenon and appearance.

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[5] Theodosius Dobzhansky, Postscript: Letters to two Friends, (New York: New American Library, 1967) p. 221.

> Seeing, we might say that the whole of life lies in that verb-if not in end, at least in essence."[6]

The vision is there to be seen.

> "To try to see more and better is not a matter of whim or curiousity or self-indulgence. To see or to perish is the very condition laid upon everything that makes up the universe, by reason of the mysterious gift of existence."[7]

Thought and life itself turn on the vision. This conception of truth demands more than an effort to understand. It demands that it be integrated into the life of the man who perceives it. The vision requires apostles. Since Teilhard accepts the calling to evangelism, he places himself in the role of developing apostles, votives to the vision he sees. Teilhard's task is to evoke a commitment. His style then must touch the whole man directly. Understanding follows the perception of the vision of the whole; it does not lead to it.

Teilhard's style is an attempt to accomplish the task of evangelism. In it, vision dominates logic; that is, the vision dominates the explanation of itself. Teilhard's vision of matter does more than resist the analytic tool; it turns the tool to its own purposes. It is above the instrument, just as perception of the vision is prior to the understanding of the vision. The instrument conforms to the vision. It must lest it destroy the vision.

> "...analysis, that marvelous instrument of scientific research to which we owe all our advances but which, breaking down synthesis after synthesis, allows one soul after another to escape, leaving us with a pile of dismantled machinery, and

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[6] Phenomenon of Man, p. 31.

[7] Ibid., p. 31.

evanescent particles."[8]

Teilhard resembles Hegel. Just as the dialectic purports to explain the march of God in the world, the logic of evolution "explains" the march of man, or what he represents, through the universe to God. But these logics are not so much an explanation of the phenomena as they are expression of it. This shift in quality is a result of a view that seens that "logic" names the conceptual representation of living things. This conceptual representation and living things are equal parts of the process of being. The process, living things and logic, is not open to the momentary or localized stoppage that definition necessitates because life and logic have become existentially the same thing. Thus the logic peculiar to their visions does not explain because Teilhard and Hegel have voided these logics of their critical capacity. This fact also defeats any attempt to use them as an instrument of analysis. The result is that the reliability of the dialectic or evolution as a demonstration of, or a foundation for, our judgment of the perspective is vitiated.

Unlike Hegel, Teilhard does not attempt to alter the system through which he interprets his vision. Hegel created a logic to combine with his vision. Teilhard adapts the law of evolution to his vision, adding to rather than changing its essential terms. Even in Teilhard's conception evolution maintains its own peculiar systematic nature. Because evolution has not been redesigned to conform to the vision, as is the case in Bergson's philosophy, it continues to rest on its own resources for justification. Teilhard thus establishes both a systematic and a visionary pole in his system of thought.

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[8] Ibid., p. 257.

> "The Teilhardian systhesis is not only science. But it includes science. Without science it would indeed, become 'vaguely inspirational musings' as it was branded by one of its numerous critics."[9]

Teilhard channels his vision through an alien, if not unfriendly system. Vision is interpreted in a systematic key, a situation which produces inconsistency and confusion.

Before I go on to an examination of science as a key to the vision, I believe there is an aspect of Teilhard's thinking that I should note here. Since the vision is a vision of God through Christ in matter and because the vision is immediate and pre-eminent, it is not science which justifies the belief in God or Christ; rather, to Teilhard it is the vision which justifies science or ought to justify science.

> "In spite of the part of my life that is turned toward God-or rather, precisely because of this part, which stimulates my inner forces instead of absorbing them-I have need of an outlet."[10]

Teilhard is no Aquinas proving God to the sceptical mind. Teilhard annihilates that issue in the vision. Teilhard rushes into post modernity without a backward glance, leaving a host of moderns gasping for breath. This courtesy has been repaid with a marked uneasiness on the part of both science and religion.

I mention this fact because I believe it highlights the factors under consideration here. It points up a tendency in Teilhard to dissolve rather than resolve difficulties, a feat which he can carry off because of the power of his person, his style, and his thought. But the problems remain. In plunging ahead he fails to build sufficient support for his advance. He does not outline clearly relationships among his concepts important to the understanding of the whole. His sharp turn away from transcendentalism as he begins to develop his vision displays this tendency. There is no transition between vision and science. They are joined together without benefit of a discussion of the nature or of the details of this marriage. The marriage is consummated by applying the light of the vision to the concerns of biology. Though the issue is expressed in biological terms, it is by nature neither biological nor visionary. What happens is something new, and it is not without the problems that seem to congregate on new ground. Try as he might, Teilhard cannot avoid the systematic implications of biology, or more specifically, the evolutionary theory, as he rests his vision on the substantial foundation that empirical fact gives it. "He achieves this by examining every fact and every subject of his investigation _sub specie evolutionis_, with reference to its development in time and to its evolutionary position."[11] Teilhard, in short, has allowed neither science nor vision to limit each other. Ironically, the incompatibilities introduced handicap both sides.

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[9] Theodosius Dobzhansky: op. cit., p. 225.

[10] Ibid., p. 43.

The final twist is added by the quality of the vision itself. Teilhard's vision is in a poetic, not a philosophic, temper. He is not a visionary like Plato, constructing a system under the peculiar rubric of the vision. He does not organize the illumination of the vision. Rather the light of his vision seems to fall haphazardly through the reality he sees. He picks his way through phenomena, unifying things with the vision immediately, relating things through it, not in the light of it. The vision, then, does the work that a system would; ironically, this "work" of illumination is done on an already highly systematic structure. As Christopher Mooney points out in his Teilhard de Chardin and the Mystery of Christ:

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[11] Julian Huxley: Introduction, _Phenomenon of Man_, (New York: Harper and Row, 1959) p. 11.

> "For Teilhard, on the other hand, an evolutionary world-view is the only world-view, the sole framework, the sole mode of approach to reality, the sole criterion for solving all problems, whether scientific, philosophical, theological or spiritual. As a consequence, all his affirmations tend to be cut from the same cloth, with little or insufficient distinction between various shades of assent. Truths of an experimental order, legitimate interpolations from scientific data, extrapolations of a purely conjectural order, philosophical speculation, truths revealed to Christian faith, opinions which are purely theological, all these are invariably presented with the same vigour and sometimes with the same unguarded assurance."[12]

If Plato's work is seen as reminding one of a great building which is carefully illuminated at night to show off its finest points, Teilhard's work is like a skeleton of a building in which a powerful light has been set illuminating the darkened structure now here and now there, serving more to suggest than describe a completed structure, while at the same time producing some awesome and strange effects. The distinction here turns on the difference between seeing things in something and seeing things through something. Teilhard's vision is one of immediate, overwhelming impregnation.

> "Without earthquake, or thunderclap: the flame has lit up the whole world from within. All things individually and

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[12] Christopher Mooney, S.J.: Teilhard de Chardin and the Mystery of Christ, (New York: Harper and Row, 1964) p. 201.

> collectively are penetrated and flooded by it, from the inmost cord of the tiniest atom to the mighty sweep of the most universal laws of being: so naturally has it flooded every element, every energy, every connecting link in the unity of our cosmos; that one might suppose the cosmos to have burst spontaneously into flame."[13]

Again it is the immediacy of the vision, the immediacy of the relationship of things to the vision that must be emphasized. This immediacy has the effect of very nearly obliterating the relationships of things among themselves and attempting to carry the stubborn facts before it by main force. The sheer power generated by the poetry of the style and the vision pulls the scientific system nearly up from its roots and still hits the reader in front with an impact that overruns difficulties rather than meets them.

Teilhard's writing becomes a force unto itself. His writing is not a true reconciliation of the poetical and the empirical, the scientific and the visionary. On the contrary, his thought moves between these two poles; moves with such great force that it sucks the two together where they coexist side by side. Contradictory tendencies, like inductive and deductive reasoning, are harnessed to the machine, but they still maintain their separation. Teilhard has the evangelical sense of putting everything on the line and thrusting it forward. His perspective on the vision lends itself to this form of maneuvering. The key words are power and feeling, not precision:

> "Above all I feel you must resign yourself to taking me as I am, that is, with the congenital quality (or weakness) which, since my childhood, has resulted in my spiritual life always being completely dominated by a kind of profound feeling of the organic reality of the world. This feeling was at

[13] Hymn of the Universe, pp. 23-24.

> first rather vague in my mind and heart, but with the passing of the years, it has gradually become a precise and overwhelming sense of the Universe's general convergence upon itself..."[14]

For Teilhard the vision is a sensation, experiential more than intellectual. It is the experience of it that Teilhard wished to pass on to his readers. Teilhard's special way of saying things, even the things he says are subsumed to this end. Ideas, vision, and science, logic, system, and intuition are brought into a poetic convergence Teilhard sees as representing the content of the vision itself. The convergent quality of his writing finds a complement in the character of his life.

In an age which demands specialization, Teilhard was a man of great breath. Despite the fact that many scientists have leveled serious criticisms at his philosophical works, no one questions his credentials as an outstanding paleontologist. The scope and depth of his researches in that and related fields attest to his accomplishment.

> "The sudden death of Pierre Teilhard de Chardin, deprived the scientific world of an outstanding expert in the fields vertebrate paleontology, paleoanthropology, and Pleistocene geology. He was well known, deeply admired and respected by colleague on four continents."[15]

His literary ability is above doubt. Unlike other scientists who have entered the realms of philosophy and theology, his interest here was more than a passing one; his writings in these fields are serious attempts to enter into the discussion of the issues arising within their areas of concern. All of this engagement with the world around him was matched by a similar engagement with himself. This engagement produced profound mystical apprehensions.

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[14] Paul Grenet: Teilhard de Chardin: The Man and His Theories, (New York: Paul S. Eriksson, 1966) p. 164.

[15] Hallam L. Movius, "Pierre Teilhard de Chardin, Paleoanthropologist," Science, CXXIII (January, 1956), p. 92.

This involvement with the world is the more remarkable for its intensity. Teilhard seems to have had the capacity to commit his person totally to his every act. His sister remarked of him: "He loved life, and he loved his own life."[16] Teilhard observed life with both passion and objectivity, a rare feat. His life, in short, was as artful and as powerful a combination of disparate elements as was his style communicating what he perceived. Lucile Swan has left us a description of Teilhard in Peking.

> "We were a strange and motley group of people in Peking of many nationalities, professions, and interests. Among the important diplomats, scientists, writers, and artists, always Pierre Teilhard stood in any group. One felt his radiant and loving presence. Even the most hardened felt his spiritual quality and wanted to be near him."[17]

Teilhard's personal capacity for synthesis both in style and life may be a factor in explaining the incomplete combination of elements that also characterize his work. A smooth and powerful style can obscure inconsistencies and incomplete thoughts for the writer as well as the reader. Deeper than this, the fact that his own commitment seems to have been made with great decision and clarity, could cause him to lose sight of the fact that understandings, which for him came easily, would produce great moral problems for others. Teilhard did not, it seems, experience directly the two great moral problems of the age: alienation and the loss of faith. Teilhard was a man with a passionate faith in life. Such a faith is sometimes blind to real deficiencies in its object. The strong, sometimes naive, conviction that characterizes his faith in science, religion, their unity, and the meaning of this unity for life itself may arise from the fact that he lived so well what he visualized. Many have found substantial justification in Teilhard's writings for their own conflicting views concerning his meaning and his intention.

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[16] The Making of a Mind, p. 24.

[17] Neville Braybrooke, edit., Teilhard de Chardin: Pilgrim of the Future, (New York: The Seabury Press, 1964) pp. 40-41.

As Paul Grenet remarked in his book,

> "Whether I want to defend or attack Teilhard's thought depends on whether I am discussing it with his detractors or his partisans. His detractors quote from Teilhard's own writings in support of their contentions. His partisans quote from others..."[18]

This view is seconded by and expanded by Christopher Mooney.

> "All of these paradoxical reactions to the thought of Pierre Teilhard de Chardin are in some measure justified. They spring ultimately from the paradox in the man himself and depend in large measure on the extent to which a given individual shares Teilhard's own intellectual and spiritual experience."[19]

His strong commitment, intellectually and personally, to so many aspects of life has given his commentators many leads to follow. This variety of response and the subsequent conflict over exactly where Teilhard stood has been centered in the areas of theology.

Though there has been much recognition of Teilhard in scientific journals, and more especially, in works concerned with evolution or the philosophy of science, most of the extended commentary on his work is in the area of theology. The reason is simple. His work as a matter of fact was an attack on the then prevailing orthodoxy, scholastic theology.

[18] Paul Grenet: op. cit., p. 102.

[19] Christopher Mooney, S.J., Ibid., p. 189.

Whether or not his work may also represent an attack on orthodox Christianity is the debatable question which has generated so much comment. There is much in Teilhard's writings to support an argument challenging his orthodoxy as a Christian and there were many willing to present this point of view. But, on the other hand, there is much in Teilhard to contradict their arguments. There is, in short, much to fan the flames of discussion over the issue of what he said; a discussion which tends to encourage a superficial examination of his work for the sake of polemics and, because of the excitment it generates, obscures his thought along other lines. New commentary on Teilhard from fresh perspectives is needed to overcome the distortion of his thought produced thus far by his commentators.

The main thrust of Teilhard's writing was the exhortation addressed to men of religion and science to unite for the development of mankind. The great evil that Teilhard saw was division and pessimism; his solution was active commitment.

> "No one will ever dissuade me from thinking that the real divide, the real human conflict of today, is not between democrats, fascists, communists, and Christians, but between those who do and do not believe that there is a Humanity to be constructed over and above man (to save and complete Man to be precise). It is a struggle between Stability and Movement. If only the essense of this conflict could appear for what it is, then would we not have the courage to fight and the willingness to give our lives! And how the shape of the front would be transformed."[20]

It is hard to see how one could expect otherwise of a man like Teilhard de Chardin. His faith was that man was called to do good and that man could do good. In the end God could and would make all that man did good. If man released his energy, God would provide the direction.

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[20] Pierre Teilhard de Chardin, Letters to Two Friends, (New York: New American Library, 1967) p. 100.

> "Our work appears to us, in the main, as a way of earning our daily bread. But its essential virtue is on a higher level: through it we complete in ourselves the subject of the divine union, and through it again we somehow make to grow in stature the divine term of the one with whom we are united, our Lord Jesus Christ. Hence whatever our role as men may be, whether we are artists, working-men or scholars, we can, if we are Christians speed toward the object of our work as though towards an opening on to the supreme fulfillment of our beings....God is inexhaustibly attainable in the totality of our action."[21]

Teilhard spent a lifetime in the energetic pursuit of his passions, never wavering in the joy he found in action.

This joy in action, this elan, was supplemented by the high purpose which was at the heart of his commitment. He saw the world in crises, he believed he saw the solution to the problem, and he was confident that man could accomplish his ends. In speaking of his intention to write the Phenomenon of Man he states:

> "Feelings of glorious unity and profound lassitude, dreams of conquest and of flight, aggressive confidence and anguish: how is it that this vast psychological domain is still virtually closed to men, who think, desire, or love like Frenchmen, Americans, or Chinese, and never like men, that is, like inhabitants of the earth....Truly we live a circumscribed existence in a milieu that requires unlimited respiration. This, in some form or other, is what I would like to put into a book of the Earth."[22]

Teilhard was a kindred spirit to the Franklin Roosevelt of 1933. He firmly believed that the real crises was fear and pessimism, and that the best way to overcome them was to strike out in a positive and decisive manner.

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[21] The Divine Milieu, p. 63.

[22] Letters to Two Friends, p. 46.

> "It is too easy to find an excuse for inaction by pleading the decadence of civilization, or even the imminent end of the world. This defeatism, whether it be innate or acquired or a mere affectation, seems to me the besetting temptation of our time. Defeatism is invariably unhealthy, and impotent; can we also prove that it is unjustified? I think so."[23]

In light of this marked orientation toward action, I believe that most commentaries on Teilhard have been misleading. They have played the entire theme in the minor chords. Their work is misleading not because they are wrong, but because they have chosen to be only half right. You cannot have the humanity, the science, or the church which Teilhard envisaged without making it, actually generating it. By the same token we cannot commit ourselves to action along these lines without accepting the consequences of plunging ourselves into the world of judgment, value, and uncertainty. But it is these very consequences that his apologists are loath to accept or even consider. It is the contention of the author that without due consideration of these consequences, meaningful discussion of Teilhard is hardly possible. This work is an attempt at developing this kind of discussion.

In developing the discussion I shall begin with an examination of the basic impulse which underlies Teilhard's thinking and the first principles which control his thought. I shall emphasize the relationship of Teilhard's response to the problem of man as he saw it, for I believe this relationship gives his thinking its peculiar flavor: the preoccupation with the virtue of faith. I shall then proceed to examination of the combination of the vision of a Christ in matter with the theory of evolution. The emphasis will be on the development of a model structure which he repeats throughout his work and hence is the prime influence on his theory of political organization.

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[23] Pierre Teilhard de Chardin, Building the Earth, (Wilkes Barre, Pa.: Dimension Books, 1965) p. 21.

Having established the groundwork of his thought, I will address the question of the role of the scientist in evolution. Because Teilhard places the scientist in a role of preeminence, I will be, in effect, addressing Teilhard's solution to the problem of political authority. This will be made clear when I address the role and nature of the State in evolution. In particular, I will examine the purposes of political life and the forms these purposes demand.

Having completed an exposition of Teilhard's thought, I will then undertake a critical analysis of it. I believe Teilhard's greatest shortcoming is his failure to grasp the moral problems facing man. Paradoxically, but then again understandably, in his anxiety to resolve a fundamental moral issue, the problem of faith, he failed to account for the impact of moral problems on his synthesis. To my mind, this failure to account for morality strikes at the very essense of politics. After all, politics deals with how men live together, which is to say it deals with a basically moral relationship. I develop this criticism by first examining what I take to be the structural deficiencies of his synthesis. I attempt to show how they cause an incapacity on the part of Teilhard's synthesis in meeting moral problems. I then examine the moral problems themselves, attempting to show that Teilhard failed to distinguish knowledge and virtue, mind and will, and organization and community all which produce deleterious results for political thought.

I think, then, that the current view of Teilhard must be modified. If we are to come to grips at all with his ideas they must be given the perspective of his style and his life, but most of all of his intentions as he addresses himself to his reader. They must be given the perspective of an understanding of their social and political implications. We must listen to Teilhard, the evangelist, to Teilhard who has made a poetic appeal to all men in the hope that he could galvanize man, to meet the challenge of human nature and of the twentieth century.

Is there any question that Teilhard concentrated the full weight of his thinking on problems of action? If not, I believe there should be no question that his audience ought to follow the finger which Teilhard so emphatically points to the realm of action and begin their contemplation of him there. The discriminating reader must seek to understand, as far as possible, the nature of the activity Teilhard so ardently advocates.

Chapter II

> "It is too easy to find an excuse for inaction by pleading the decadence of civilization, or even the imminent end of the world. This defeatism, whether it be innate or acquired or a mere affectation, seems to me the besetting temptation of our times. Defeatism is invariably unhealthy and impotent..."[24]

To appraise oneself of an author's inclinations is not enough for understanding an author's peculiar intellectual stance. A writer writes in the environment of his own perceptions; the prominent aspect of this gestalt is the way the writer perceives the problems being addressed in his work.

It would be an easy step in logic to insist that the proposition advanced in the first chapter, that Teilhard de Chardin was a man deeply committed to action in the social milieu, be evidenced by highly developed ideas on politics and social life. But this proposition does not follow. Teilhard's perception of the problem of action in the twentieth century intervenes: Teilhard perceived the problem of action or inaction as being a crisis not of design but of faith. This perception of a basic loss of faith was both an intensely felt thing and a complex of subsidiary ideas. The depth and breadth of this problem as he saw it served to focus his thought and give it its unique cast.

Teilhard begins with the fact that science captured the imagination and confidence of man in the nineteenth century. As science became more and more successful, man more and more committed himself in faith to science. This movement in itself was appropriate. Teilhard certainly _believed_ science _deserved_ the confidence man has _placed_ in it. Unfortunately, this movement in the faith, or the belief structure, of man grew beyond its proper proportions and became distorted. Teilhard saw as chief cause of this distortion the false conflict between science and religion. In Teilhard's eyes, the conflict arose because science and religion misunderstood each other and also misunderstood themselves. They attempted to universalize their respective claims against one another while constricting the scope of their characteristic perspective on the world. Science came to stand for materialism and determinism; religion for humanism and mysticism. The result of the conflict was that science became enthroned as the ruler of men's minds while religion was discredited. But this was not before science became confirmed in its too narrowly materialistic conception of the world. Thus, the great paradox was established; man put almost all his faith in science while it was becoming less concerned with man. This paradox had its own special dynamic element. Human expectations follow human faith. When science captured the faith of mankind, it had attached to it the expectation that science would solve all problems. But science, because it had narrowed its perspective, could not possibly satisfy this expectation. While man was taking an optimistic view of science, science was taking an ultimately pessimistic view of the world.

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[24] _Ibid_., p. 21.

> "A rocket rising in the wake of time's arrow, that only bursts to be extinguished; an eddy rising on the bosom of a descending current--such then must be our picture of the world.
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> So says science: and I believe in science: but up to now has science ever troubled to look at the world other than from without*?"[25]

Given this situation every new success in the development of science intensified the paradox. First, each triumph brought science nearer to the bounds of its own intellectual limits. The result was that man's confidence in science was reaching an apogee at the same time revolutionary discoveries in physics were being made, discoveries destined to destroy the scientific synthesis in which man had placed his faith. Because science had turned from man, because man had developed a false hope in it, mankind realized the paradox of the nineteenth century by being profoundly disillusioned by one of science's greatest steps forward, the development of the theory of relativity.

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* In Teilhard "without" is synonymous with "physical", and opposed to "within" or "spiritual".

[25] Phenomenon of Man, p. 52.

> "In the first and most widespread degree, the 'malady of space-time' manifests itself as a rule by a feeling of futility, of being crushed by the enormities of the cosmos.
>
> The enormity of space is the most tangible and thus the most frightening aspect. Which of us has ever in his life really had the courage to look squarely at and try to "live" a universe formed of galaxies whose distance apart runs into hundreds of thousands of light years? Which of us, having tried, has not emerged from the ordeal shaken in one or other of his beliefs?"[26]

In Teilhard's eyes, science has become a fixation. Man pursued science heedless of the fact that he was losing the ability to understand himself; which meant that every new understanding of the universe would diminish man's position in it. Man was, in effect, engaged in pushing himself out of his own comprehension; out of sight, out of mind, beyond significance. This almost masochistic fixation with science was complemented by the shriveling up of the religious and philosophic perspectives on life. In the face of the positive posture of science, religion and philosophy had become increasingly negative, and stridently polemic. Their vision atrophied as they failed to open themselves to the new world of science. Mankind reacted by leaving them in the backwater of their own

[26] Ibid., p. 226.

making. Their great failure, in Teilhard's eyes, was their failure to meet science head on, to impregnate it and convert it.

> "You know my 'faith': I think that Christianity will recover that force of contagion and conquest, which is the only method of progagation worthy of the Truth, only when men have perceived more distinctly the World through Christ, or better, Christ at the end of the World. It is the conjunction of the two realities that will save us, whereas their present opposition is our undoing."[27]

As religion drew deeper into its own sphere, and along with it philosophy, the spiritual underpinnings were being cut out from under man. This was not apparent to the Newtonian world of the nineteenth century. But World War I shattered the reverie. All the earth-shaking forces which had been building up--socialism, nationalism, technocracy, a new scientific perspective--were released. Scarcely an observer of this era has failed to remark the profoundity of the shock. The immediate effect was a deep spiritual crisis. Man quickly lost confidence in himself and in everything that he had made.

The nature of the problem determines the solution. In order to restore the virtue of faith to man, the prevailing belief structure which had been found so wanting had to be redefined. Man could only believe in something both conconnant with the advances science had made and with his own need to explain himself and his destiny. This is the challenge Teilhard took up. His answer to the problems of fragmentation and loss of nerve was characteristic. The answer, he said, will not be found in the past or in the present. Man must overcome the present by looking ahead, by discovering the future.

> "But let us look with open minds at the new world being

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[27] Letters to Two Friends, p. 40.

> born around us amid the convulsions of war. Disregarding the superficial chaos which prevents us from seeing clearly, probing beneath the shapeless disorder that so dismays us, let us try to take the pulse and temperature of Earth. If we have any power of vision we are bound to recognize that the ills which so afflict us are above all growing pains."[28]

The magnitude of the problem should not inspire hesitation and caution, rather it should call forth elan. The new age demands a new spirit.

> "Because we have believed intensely and with a pure heart in the world, the world will open the arms of God to us. It is for us to throw ourselves into these arms so that the divine milieu should close around our lives like a circle. That gesture of ours will be one of an active response to our daily tasks. Faith consecrates the world. Fidelity communicates with it."[29]

A new spirit demands a new vision, a new way of seeing things. A renovation of the old world will not do; a forced marriage of the old science and the old religion was out of the question. A new commitment to action required nothing less than man seeing himself in a new way. Teilhard believed he had the requisite vision.

> "Son of man, bathe yourself in the ocean of matter plunge into it where it is deepest and most violent; struggle in its currents and drink of its waters. For it cradled you long ago in your preconscious existence; and it is that ocean that will raise you up to God."[30]

Armed with this belief, his task was clear.

Teilhard's primary goal was to inspire and mold a new faith in man. His development of the synthesis which the vision inspires, his offering of prescriptions for concrete problems are made not for their own sake but in so far as they contribute to the accomplishment of his primary end. The strength of this drive, I submit, explains the careless treatment of detail which characterizes his analysis and the inattention to problems of action which pervade his work. Because Teilhard was convinced action followed faith and was directed by it, he was not concerned with action as such. Teilhard leaves for the reader, then, the task of developing the meaning of the act of faith. He does lay out definite guidelines, but the reader must follow them on his own.

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[28] Pierre Teilhard de Chardin, The Future of Man, (London: William Collins Sons and Co., 1964) p. 187.

[29] The Divine Milieu, p. 118.

[30] Hymn of the Universe, p. 65.

The essential components of Teilhard's vision are God, matter, movement, and man. These four are woven together in a set of relationships centered on God in the person of Christ. "...Christ himself does not act as a dead or passive point of convergence, but as a centre of radiation for the energies which lead the universe back to God through His humanity."[31] God, then, acts as absolute cause. He envelops the whole process. Christ, through his incarnation, divinizes matter and thus becomes the bridge between man and God. He opens to man the possibility of drawing together in God.

> "The generating principle of our unification is not finally to be found in the single contemplation of the same truth or in the single desire awakened by something, but in the single attraction exercised by the same someone."[32]

Christ, in his life, is the dynamic for this process. God in Christ is at once unifying and generating all things. Matter is the medium that God has chosen for his work. The Incarnation is both the sign and the reality of this act. Matter, then, is the essential environment for the procreative activity of created spirit. Man's part in evolution is the procreative work assigned to him.

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[31] The Divine Milieu, p. 101.

[32] Building the Earth, p. 111.

> "The history of consciousness and its place in the world remain incomprehensible to anyone who has not seen first of all that the cosmos in which man finds himself caught up constitutes by reason of the unimpeachable wholeness of its plurality, a totum by its unity, a quantum by its energy; all three within a boundless contour."33

The centrality of the figure of Christ must be emphasized Christ, in a sense, is all four of the components of the vision. He does not exhaust the concepts of God, man, matter, and movement certainly, but his person touches on all four. Christ was, is, and will be, God-man. He was material and because of that fact has left his imprint on all matter. Finally in his continuing activity of incorporating man into himself in order to realize the full potential of mankind, he is the culmination of man at the end of time. It is this aspect of his person which Teilhard focuses on. It must be made clear that this emphasis is not a part of the vision itself: it is the character of the explanation of the vision. The line of explanation Teilhard chose to follow was dictated as much by his perception of the problems of his age as by the nature of his mystical vision. Teilhard chose to interpret the vision in an evolutionary key in order to relate vision to the problem of faith.

Teilhard's argument for this approach is as follows. The vision shows that everything is part of an organic whole.

> "The stuff of the universe, woven in a single piece according to one and the same system* but never repeating

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*Teilhard's note: which we shall call later on "The Law of Consciousness and Complexity."

33 Phenomenon of Man, p. 43.

> itself from one point to another, represents a single figure. Structurally, it forms a whole."[34]

Science has demonstrated the validity of the law of biological evolution. Or, science has demonstrated that biology or biological history is organized in an evolutionary pattern. Since biology is the science of life, and everything participates in life, it has a unique claim to universality. Teilhard's synthetic conclusion is drawn from these two propositions, without intervening steps, without equivocation or qualification as it were. Because all is one, and evolution is a form of organization which is an aspect of this one, everything is organized in evolution.

> "Is evolution a theory, a system, or a hypothesis? It is much more: it is a general condition to which all theories, all hypotheses, all systems must bow and which they must satisfy henceforward if they are to be thinkable and true. Evolution is a light illuminating all facts."[35]

The establishment of the vision as first principle and the adoption of the evolutionary logic allowed Teilhard to develop a metaphysics of evolution. "He synthesized these radically disparate approaches (i.e. mysticism and science) into a metaphysics suggestive of a new personnal religion...."[36]

The metaphysical principles which Teilhard developed form the cement holding his synthesis together. Their formation is a highly important step. It is a step which separates Teilhard more or less radically from other evolutionary thinkers. As Matson has pointed out in his fine book,

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[34] Ibid., p. 45.

[35] Ibid., p. 218.

[36] G.G. Simpson: "On the Remarkable Testament of the Jesuit Paleontologist Pierre Teilhard de Chardin," Scientific American, April, 1960, CCII, p. 202.

The Broken Image, the evolutionary overview of biological scientists in the twentieth century represents a departure from the Darwinian point of view.

> "Among the "individualistic" Darwinians, it was the American William Graham Summer who was most forthright in spelling out the moral which all alike accepted: that the human being was the passive agent of natural forces working through him..."[37]

Man was seen as just another animal. The tendency among 20th century humanists such as Julian Huxley and G.G. Simpson is to assign a special place to man, and to see evolution as being operative in his social and intellectual life. In effect, they accept man as human and turn to face the problem of his future. But this is where they stop, venturing no further than--as Julian Huxley did in his Evolution in Action--to prescribe certain remedies for our present ills. No scientist follows Teilhard in developing a comprehensive overview which includes the future; although there are some, such as Theodosius Dobzhansky, who note Teilhard's boldness with approval. In summary, the basic similarity among these twentieth century views is humanism; the factor which distinguishes Teilhard is the comprehensive quality of his view, an extension which he roots in theology and metaphysics.

Evolution, according to Teilhard, is moving forward on a broad front. Although its ramifications may move off in differing directions, the total pattern follows a straight line, moving from the beginning point, Alpha, to the end, Omega. These points indefinite in themselves define the line. The line is matter in movement; matter being directed from above and ahead.

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[37] Floyd W. Matson, The Broken Image, (New York: George Braziller and Co., 1964) p. 37.

Evolution is an organic movement for which Alpha is the embryo.

> "We are back at the refrain that runs all the way through this book. In the world, nothing could ever burst forth as final across the different thresholds successively traversed by evolution (However critical they be) which has not already existed in an obscure and primordial way."[38]

Teilhard's conception of organic unity is a significant characteristic of his thinking. Teilhard makes no distinction on this basis between physical and ideal entities. Physical and ideal existents are both alive, that is enjoying life in a biological sense. It necessarily follows, then, that the definition of their vitality will be found in a physical structure. In short, Teilhard perceives the existence of ideal organisms. The life of these organisms enjoys in an even more exalted way all the special qualities that the term organism implies. Thus, the physical organism is the first gradation in the ladder of possible organic development.

The embryo lives and develops in the world. The earth provides the environment which will sustain life. However, this womb is an indifferent one. It is a life-giving environment which must also be overcome. Evolution moves in this context. The interaction of the forces inherent in matter with the environment set up the laws under which evolution operates. The law of natural selection, for instance, assumes such a struggle with the environment. Under the pressure of these laws patterns begin to take shape. The forces within matter begin to move matter along definite paths.

From the point of view of man, the process of becoming Omega represents the realization of the potential of Alpha. All of evolution is an

[38] Phenomenon of Man, p. 71.

organic whole, rooted in the most distant past and a foundation for the most distant future.

> "...from top to bottom, from our souls and including our souls, the lines stretch in both directions, untwisted and unbroken. From top to bottom, a triple unity persists and develops: unity of structure, unity of mechanism, and unity of movement."[39]

Everything contributes to the evolutionary body and finds its purpose in it. Every step in evolution is a step toward the end point. Every step represents a rise in consciousness.

The organic unity of the process and its substance has two important implications. First, the concept provides convenient transition from evolutionary theory to Teilhard's vision.

> "Since the stuff of the universe has an inner aspect at one point of itself (i.e. man), there is necessarily a double aspect to its structure, that is to say in every region of space and time - in the same way, for instance, as it is granular*. Co-extensive with their without, there is a within to things."[40]

Matter is seen as wrapping together from the very beginning two natures, psychical and physical. Translating this into terms of movement, evolution is both a psychical and physical advance. So the vital energy which moves evolution has two sides, which are coordinated in tangential and radial movements. First, the psychic force directs the physical substance outward to explore and develop new unions. These various unions,

* Granular here refers to a special quality of organic unity. Every grain or particle which participates in that unity enjoys the essence of that unity, the life that unity makes possible. Hence every particle reflects organic unity.

[39] Ibid., pp. 220-221.

[40] Ibid., p. 56.

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The first great stage of evolution is one dominated by physical force and manifesting itself in biological events. Just like the ignition of the first stage of the rocket launch, that period of evolution from the Alpha to the advent of man is the period of greatest thrust and characterized by being under the most direct control of God. There is a physically defined pattern. The object of all of this is to reach a given point most opportune for the initiation of the second stage.

> "Now that the historically increasing intricacy of forms and organs has demonstrated the irreversible augmentation of brains (and therefore consciousness), not only in quantity but also in quality, we are forced to realize that an event of another order--a metamorphosis--was inevitably awaited to wind up this long period of synthesis in the course of geological time."[44]

As the great thrust of the first stage begins to fade, and the whole reaches an even trajectory, the second stage is initiated.

The second stage is more loosely controlled than the first, but still is determined by the first stage and has a forward thrust which is directed. The second stage of evolution, the era of the development of man, is a period when the physical and psychical forces interact as coequals to bring man to efflorence. This is the stage we are in.

> "Our picture is of mankind laboring under the impulsion of an obscure instinct;...of mind, in other words, deploying and convoluting the layers of the noosphere. This effort at multiplication and organic expansion is, for him who can see, the summing up and final expression of human prehistory and history, from the earliest beginnings down to the present day."[45]

This stage began when consciousness, the manifestation of psychical force, reached, in man, the level of reflection. Our period is one of expansion of awareness from this beginning point to a point where consciousness becomes the dominant force, then becomes all pervasive, and finally turns in upon itself.

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[44] Ibid., p. 152.

[45] Ibid., p. 190.

> "...evolution as so reducible to and identifiable with a progress towards thought that the movement of our souls expresses and measures the very stages of progress of evolution itself. Man discovers that he is nothing else than evolution become conscious of itself, to borrow Julian Huxley's concise expression. It seems to me that our modern minds (because and inasmuch as they are modern) will never find rest until they settle down to this view."[46]

According to Teilhard, the third and final stage of evolution is like that stage of the rocket launch when the payload is orbited. With a small, final burst of physical energy, the final corrections in the process will be made. Man will reach the end of his physical development by forming an advanced organization based on psychical force, "The social phenomenon is the culmination and not the attenuation of the biological phenomenon."[47] What happens here at the critical point, the point when a lasting social organism is formed, is not under the direct control of God. Man must freely choose to follow the implications of the preconditions of this moment which God has prepared.

> "In addition it (i.e. evolution) becomes free to dispose of itself--it can give itself or refuse itself. Not only do we read in our slightest acts the secrets of its proceedings; but for an elementary part we hold it in our hands, responsible for its past to its future."[48]

After this critical point is passed, the last stage is one of developing the social organism to its full capacity for understanding, and out of understanding, love. This is the end point to which all has been directed. Omega is that depth of understanding and love which allows all of humanity to confront God, face to face.

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[46] Ibid., p. 220.

[47] Ibid.,.p. 222.

[48] Ibid., p. 226.

> "We have gone deeply into these new perspectives: the progress of the universe, and in particular of the human universe;...the greater man becomes, the more humanity becomes united, with consciousness of, and master of, its potentialities, the more beautiful creation will be, the more perfect adoration will become, and the more Christ will find, for mystical extensions, a body worthy of resurrection. The world can no more have two summits than a circumference can have two centres."[49]

The important factor to note in this description of Teilhard's overview of evolution is the nature of the distinction among its three great stages. The first stage is emphatically physical. It is an epoch when the goal is biological as opposed to social, change is impelled by physical rather than psychical forces, and the course of evolution is determined by physical laws. By contrast, the third stage of evolution is directed to the best possible social arrangements as impelled by mankind's collective apprehension of a determining model, Omega. Internal control is substituted for remote control. This essential difference is made effective during the second, or present, stage of evolution. Evolution is currently in the process of developing an internal mechanism of control. That is what Teilhard's synthesis is all about.

Although the analogy to a rocket launch serves a description of the pattern of Teilhard's conception of evolution well, the motion of the process is not like the rocket. The rise of consciousness up to the climatic confrontation is not a concentrated push upward. Rather, the process is reached, in man, the level of reflection. Our period is one of expansion of awareness from this beginning point to a point where consciousness becomes the dominant force, then becomes all pervasive, and finally turns in upon itself.

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[49] The Divine Milieu, p. 137.

> "...evolution as so reducible to and identifiable with a progress towards thought that the movement of our souls expresses and measures the very stages of progress of evolution itself. Man discovers that he is nothing else than evolution become conscious of itself, to borrow Julian Huxley's concise expression. It seems to me that our modern minds (because and inasmuch as they are modern) will never find rest until they settle down to this view."[46]

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Although the analogy to a rocket launch serves a description of the pattern of Teilhard's conception of evolution well, the motion of the process is not like the rocket. The rise of consciousness up to the climatic confrontation is not a concentrated push upward. Rather, the process is more like the pumping of a heart. There is the thrust outward, an expansion in scope, then the thrust inward and upward, which is a comprehension of the expanded scope.

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[49] The Divine Milieu, p. 137.

> "Thus, by the very rhythm of its development, each line of life follows a process of alternate contraction and expansion. It takes on the appearance of a series of knots and bulges, strung like beads, a sequence of narrow peduncles and spreading leaves."[50]

This pump-like cycle is necessary to the process of growth. The divergence of the elements of organism to conquer a new area must be followed by a deepening organization to allow the organism to control and then develop the newly won acquisition. Organization is centralization. Organic growth is defined in this divergence-convergence relationship.

> "What defines the phylum in the first place is its 'initial angle of divergence', that is to say the particular direction in which it groups itself and evolves as it separates off from neighbouring forms.
>
> What defines it in the second place is its initial section*."[51]

These movements, in and out and upward, the rise of consciousness in a chain of steps, dovetail. They are the design of evolution. They are constants repeated over and over in unique moments. Thus, it is the understanding of this over-all design which leads to the understanding of the moment.

Omega, the ultimate in consciousness, culminates the temporal order. Omega serves the process, the living of evolution, as a model, just as Alpha serves as its wellspring. Omega is organically Alpha. It is Alpha realized. The fact that Alpha and Omega begin and end time must be repeated, their temporality must be emphasized. However, Omega is also transcendent. It is both in and out of time. Omega is the place Christ occupies in evolution. It is not, in itself, a utopia. Rather, it is the end of waiting. The realization of Omega is one of limitation; the knowledge of utter dependence as one stares into the exhaustion of the finite. It is the end of the struggle and the call to God to resurrect a dying creation to the level of the infinite. Omega is the Parousia.

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* i.e. the point of unity from which it began.

[50] Phenomenon of Man, p. 119.

[51] Ibid., p. 115

> "One day, the Gospel tells us, the tension gradually accumulating between humanity and God will touch the limits prescribed by the possibilities of the world. And then will come the end. Then the presence of Christ, which has been silently accruing in things, will suddenly be revealed-like a flash of light from pole to pole."[52]

According to Teilhard, since evolution has this defined end, Omega, and since it is organic, the entire design of it exists. This design has been partially completed. The problem before man is to first discover that design and then direct himself to the fulfillment of it.

> "It is then surely evident that, through a reciprocal mechanism of action and reaction, the vision and prevision of this ultimate end, the outcome of History and of Life, may be made to play an essential part in the building of the future, if only by creating the atmosphere, the psychic field of attraction, without which it will be impossible for Humanity to continue to converge upon itself."[53]

Evolution becomes a co-operative work between God and man. As man's capacity for understanding himself and his position in the universe grows, his responsibility for this work increases. These are the keys to human history: reflection, knowledge, and responsibility growing ever greater, their importance becoming more critical. The psychic force inherent in all of matter has been concentrated in man. Man must cultivate it.

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[52] The Divine Milieu, p. 133.

[53] The Future of Man, pp. 256-257.

The human responsibility for psychic life has a definite shape. The goal is not biological restructuring of the individual human brain. The goal is not the development of a super mind. The goal is to broaden and deepen thought and love. This goal is necessarily a collective one, not an individual one.

> "The outcome of the world, the gates of the future, the entry into the super-human--these are not thrown open to a few of the privileged nor to the one chosen people to the exclusion of all others. They will open only to the advance of all together."[54]

The reason for insisting on the collective character of the evolutionary enterprise arises from an understanding of the nature of thought and love themselves. Thought depends on communication and encounter for development, which implies the relationship of collected individuals. Love is a relationship itself. In man, love demands the participation of more than one.

Man fulfills his individual nature by uniting it with other individuals on ever higher planes and in ever greater extensions. This means that man must develop his social nature. Before man can think and love as one, man must learn to live together. Just as the biological organism organizes to begin a new life, man must organize himself, organize individuals around one another, to begin a new life.

> "Woman is put before him as the attraction and symbol of the world. He can unite with her only by enlarging himself in turn to the scale of the world, and because the world is always larger, and always unfinished and always in

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[54] Phenomenon of Man, p. 244.

> advance of us, to achieve his love Man thus finds himself embarked on a limitless conquest of the Universe. In this sense, Man can reach woman only through the consummation of the universal union."[55]

The structuring of this supra-human organism must be accomplished by reference to that total organism, evolution, of which it is an organic part. Evolution, under different aspects, is making itself, is a model for itself, and is necessitating itself. Evolution is an ideal being made real by both external and internal activity. As an ideal it is intellectually apprehended and, thus, is a universal principle.

> "No, taken sufficiently broadly, evolution is no longer, and has not been for a long time, a hypothesis--nor merely a simple method. It is in fact a new and common dimension of the universe, and consequently affects the totality of elements and relations of the universe. Not a hypothesis, therefore, but a condition which all hypotheses must henceforthfulfil. The expression for our minds of the world's passage from the state of 'cosmos' to the state of 'cosmogenesia'."[56]

Evolution, as universal principle, determines the nature of all organization.

> "for a mind that has awakened to the full meaning of evolution, mere inexplicable similitude is resolved in identity--the identity of a structure which, under different forms, extends from the bottom to the top, from threshold to threshold, from the roots to the flowers--by the organic continuity of movement or, which amounts to the same thing, by the organic unity of milieu."[57]

Evolution manifests itself, organizationally speaking, in the biological organism. This organism becomes then, the design for all organization--past, present, and future. The implications of this statement are great.

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[55] Building the Earth, pp. 48-49.

[56] Pierre Teilhard de Chardin, The Vision of the Past, (New York: Harper and Row, 1966) p. 246.

[57] Phenomenon of Man, p. 222.

There is a proportion among all examples of organization. "...are not the artificial, the moral, and the juridical simply the hominised versions of the natural, the physical and the organic?"[58] Analysis, even down to specifics, is transferable. In the realm of practice, the organizational formation which does not conform to the organic design is then imperfect. The biological organism is both a standard for analysis and a standard of measure. This is one of those axes which dominate Teilhard's thinking, an axis on which he turns thought concerning social activity.

The dual role of evolution as an ideal and real order has an interesting effect on argumentation. Evolution, which is ordinarily thought of in terms of categories relevant to the past, is now alive in the form of a logic. As a logic, it operates in a circle. Because evolution is a model, one is allowed to argue by analogy to ends, directions and means while at the same time, because it is a metaphysical reality, one posits the existence of these same ends, directions and means. This intersection of the intellectual and the real having once been established in the logical realm, reverts back to the realm of phenomena. In the metaphysics of evolution, this interaction of the intellectual and the real is seen as a process of their becoming the same. The advance ofthought becomes the advance of evolution which becomes in turn the advance of thought in evolution. All of these are identified with thinking on the fact of evolution.

Evolutionary logic leads one, then, to this final combination which caps all the others--evolution is combined with the advance of evolutionary thought. The conceptualization of advance is wrapped up in the development of the concept itself. Evolution acquires a new character. Evolutionary advance is wrapped up with, and in the process is becoming identified with, the development of a new, universal science with the principle of evolution at its heart. The universality of the new science goes beyond a universal acceptance in the realm of theory to a universal application of it in the world of practice. "We need and are irresistibly being led to create by means of and beyond all physics, all biology and all psychology, a science of human energetics."[59] But, in conformance with the model, the new science, too, must go through a process of organic growth.

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[58] *Ibid.*, p. 222.

The new science and the process of evolution itself enjoy a rather unique relationship. Just as evolution depends on the new science for greater direction; so too the new science depends on the workings of the process of evolution for material to study and vindication for its hypotheses. As the hypothetical structure of the new science is tempered in the operation of evolution, it becomes both more certain and more highly detailed. As this happens, it grows closer to the evolutionary process itself. The end result is a merging of theory and practice, as the interdependence of science and process becomes a necessary relationship.

> "If there is a future for mankind, it can only be imagined in terms of a harmonious conciliation of what is free with what is levelled and totalised. Points involved aree the distribution of the resources of the globe; the control of the trek towards unpopulated areas; the optimum use of the powers set free by mechanisation; the physiology of nations and races; geoeconomy, geopolitics, geo-demography; the organisation of research developing into a reasoned organisation of the earth."[60]

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[59] Ibid., p. 283.

[60] Ibid., pp. 282-283.

Hitherto, only the impersonal aspects of evolution have been noted. Yet, one of the hallmarks of Teilhard's thought is human responsibility in the rise of man to capacity to control the evolutionary process.

> "Certainly in our innermost being we all feel the weight, the stock of obscure powers, good or bad, a sort of definite and unalterable 'quantum' handed down to us once and for all from the past. But with no less clarity we see that the further advance of the vital wave beyond us depends on how industriously we use those powers."[61]

Crucial for the success of humanity in this stage is the ability to see, to understand and to apply all at once. The combination of these functions is by definition proper to an enlightened authority. This authority is the new scientist, and as his knowledge becomes universal so too does his authority.

The authority of the new scientist rests on merit. He is the chosen instrument. The more he sees, the more absolute his right to power. Stated another way, in so far as the new science is necessary to evolution, the devotees of the new science, the creators of it, are also necessary. Moreover, because the new scientist is essential to the process, he is also responsible for it. Bearing this responsibility, the new scientist must be accorded the means to meet it. The fact of the responsibility justifies the grant of practical authority.

> "For that reason, if a spiritual Human Front began to come about, it would need, alongside the engineers occupied in organizing the resources of the earth and its lines of communication other 'technicians' solely concerned with defining and propagating the concrete goals, ever more lofty, upon which the efforts of human activities should be concentrated."[62]

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[61] _Ibid_., p. 224.

[62] _Building the Earth_, p. 37.

The vision then is tantamount to a commission to build the earth. This is the occupation to which Teilhard calls us. Here the force of Teilhard's analysis meets the intensity of his purposefulness as he speaks directly to us,

> "We cannot wait passively upon the statistical play of events to decide for us which road the world is to take tomorrow. We must positively and ardently take a hand in the game ourselves."[63]

The creation of the new science is a work which Teilhard sees before us. This should be the immediate object of the scientific speculation of our time. Teilhard's metaphysics resolve the question of faith. The object of the newly defined faith is a new science. It is the new science which will resolve the problems of action. Teilhard's metaphysics ends with the conclusion that social activity ought to be structured scientifically. This conclusion will be explored in chapters three and four.

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[63] The Future of Man, p. 256.

Chapter III

> "...under the combined influence of machinery and the super heating of thought, we are witnessing a formidable upsurge of unused powers....When we consider the increasing compression of elements at the heart of a free energy which is also relentlessly increasing, how can we fail to see in this twofold phenomenon the two perennial symptoms of a leap forward of the 'radial'--that is to say, of a new step in the genesis of mind?"[64]

The last chapter began with the problem of faith in our century. The discussion throughout the chapter centered on Teilhard's development of a rational response to the problem as he saw it. In this chapter and the succeeding one, the discussion will center on an application of that rationale, the Teilhardian metaphysics, to the problems of our century. The present will be viewed through the eyes of a faith in the new science.

The most encouraging aspect of our times has been the rapid expansion of scientific knowledge. It is the meaning of this expansion for the history of the world and thought which is balanced on the scales of judgment. It was Teilhard's faith that the scientific revolution would start a chain reaction of revolution that would recreate the world. The expansion of knowledge is the force which moves the revolution. It is also the material out of which a new world is made. In the first instance, the weight of the newly acquired knowledge serves to breakdown the credibility of old explanation. This result has come to pass. Teilhard saw the disillusion and despair which accompanied the break-up of the outmoded structures as being as inevitable as their failure itself; but, more significantly he saw these attitudes as being temporary and local.

> "Throughout the world at this moment, without distinction of country, class, calling or creed, men are appearing

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[64] Phenomenon of Man, p. 252.

> who have begun to reason, to act and to pray in terms of the limitless and organic dimensions of Space-Time. To the outside observer such men may still seem isolated. But they are aware of one another among themselves, they recognize each other whenever their paths cross. They know that tomorrow, rejecting old concepts, divisions and forms, the world will see what they see and think as they do."[65]

Teilhard's optimistic perspective on our age presupposes an understanding of evolution. On the other hand, one cannot understand evolution until one has perspective on the happenings of the present. The present must be defined and analyzed as a stage of evolution and, further, it must be seen as a necessary step in a patterned development. "The events we are witnessing and undergoing are unquestionably bound up with the general evolution of terrestrial life; they are of planetary dimensions."[66]

At the root of the mood of our century is the deplorable separation of science from religion, the divorce of the concern for spirit from the concern for the physical. In Teilhard's eyes this separation has a definite place in the process of evolution. "If there is any characteristic clearly observable in the progress of Nature towards higher consciousness, it is that this is achieved by increasing differentiation,..."[67] This separation between religion and science is a repetition of the many divergences that have taken place on the level of physical phenomena and is, like those divergences on their own planes, part of the organic development of evolution.

When religion and science are compared it can be readily seen that they have different concerns. Given this difference, they exist in different spheres. As is characteristic of Teilhard, this relationship is viewed as dynamic, rather than static, "Under the influence of countless accumulated and compared experiences, an acquired human psychism is continually being built up, and within this we are born, we live and we grow..."[68] "Religion" and "science" designate growing entities not dead categories.

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[65] The Future of Man, p. 96.

[66] Ibid., p. 97.

[67] Ibid., p. 51.

In the process of devèlopment, attention moves inevitably to the heart of the special concern which is being addressed. Obeying this general rule, science and religion tended to grow more rapidly at the center of their particular spheres, to the neglect of their sphere's boundaries. There was a mutual neglect of that area where religion and science bordered one another. Far from coordinating their development, they develop independently and alone. So, in fact, for a time their growth is a process of surface alienation. The scientific and religious impulse have grown further apart, historically, and even conflicted as they have become more distinctive.

There is a positive side to this development. Man is learning more about those peculiar areas which both religion and science are exploring. Seen in terms of the totality of knowledge, as these two specific areas of thought develop themselves, they are pushing back the frontiers of thought.

> "On the other hand, in this endless and indivisible network, everything has a particular position defined by the development (free or pre-determined) of the entire system in movement. Whereas for the last two centuries in our study of science, history, and philosophy has appeared to be a matter of speculation, imagination and hypothesis, we can now see that in fact, in countless subtle ways, the concept of

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[68] Pierre Teilhard de Chardin, *Man's Place in Nature*, (New York: Harper and Row, 1966) p. 92.

Evolution has been weaving its web around us."[69] Futhermore, by working separately, science and religion are better able to accomplish the task of expansion. In effect, the centrism of the parts produces an anti-centrism for the whole; polycentrism is a powerful centrifugal force which stretches the envelope of thought and spreads it out in an ever widening circle.

The foregoing interpretation of the problem of religion and science in our age both relies on and reinforces the evolutionary model. The model allows us to assume the framework which the analysis above imposes on the events of our age. By the same token, because these facts fit into the framework snugly enough, the lens through which these things are being seen is vindicated. In any event, the model which was developed metaphysically has been applied, and our epoch can be described as an epoch of divergence.

The idea of divergence in Teilhard always implies the basic organic unity. Speaking in logical terms, it is a contrary to convergence; at the same time, it flatly contradicts fragmentation.

> "Important though the dispersive effects, whose duty, one might say, was to support the world's expansive and exploratory power by the play of diversity, show themselves to have been in the past, it is always, in the final analysis, to the differential progression of the different parts of the universe along certain favoured axes (that is to say orthogeneses) that we must return in order to try and understand what 'evolution', as we call it for want of a better work, means and where it is leading us"[70]

Phenomenologically, this means that as the state of divergence matures, the organism is itself maturing to a point when organic unity will assert itself and convergence will begin.

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[69] The Future of Man, p. 85.

[70] The Vision of the Past, p. 240.

> "Now when sufficient elements have sufficiently agglomerated, this essentially convergent movement will attain such intensity and such quality that mankind, taken as a whole, will be obliged--as happened to the individual forces of instinct--to reflect upon itself at a single point*;..."[71]

The further the two centers advance along separate paths, the closer they draw to each other because the steps in the process of evolution are being worked out.

The organic unity of the world of thought rests on the organic unity of phenomena in evolution. Ultimately, everything participates in the organic unity that is matter. It is this unity which makes all unities real. It is matter manifested in man which guarantees the convergence of forces on both the physical and psychical levels.

On the positive side, the very fact of the alienation of science and religion generates a demand for reconciliation. For one, the further the two grow apart, the more dominant their superficial conflicts become. Since these conflicts are debilitating to both sides, both sides feel a pressure to remove them. Secondly, the more highly developed either science or religion becomes, the more apparent the partiality of their natures becomes. This effect is heightened by the press of questions that neither one of them can answer. These two factors culminate in a realization that both religion and science are capable of helping one another.

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*Teilhard's note: Which amounts to saying that human history develops between two points of reflection, the one inferior and individual, the other superior and collective.

[71] Phenomenon of Man, p. 287.

> "As the tension is prolonged, the conflict (i.e. between science and religion) visibly seems to need to be resolved in terms of an entirely different form of equilibrium--not in elimination, nor in duality, but in synthesis....it becomes obvious that neither can develop normally without the other. And the reason is simple: the same life animates both."[72]

The underlying basis of this drive to synthesis is the psychology manifest in this century, man is not able to stand the tension of divergence for too long. Mentally and psychologically, he is a creature who insists on understanding; his mind is made for synthesis.

It is well to pause at this point and take stock of the argument. First, Teilhard by applying the categories of divergence-convergence has saved the idea of progress. Moreover, he has given good reason to expect an imminent change in the human perspective on the world. This expectation he has reinforced by reference to obvious human needs which demand realization of a change in perspective. He has, furthermore, located the elements out of which the expected change will come, those who look to the future. Finally, he has identified the shape this change must take, synthesis. This was by reference to the evolutionary model. What Teilhard had accomplished is a conforming of facts to the model. He has given the model vitality. This factor produces the end of the full circle; experience appears to vindicate the model and its metaphysical foundations. A platform capable of supporting a more specific examination of the contemporary world has been established.

The forces calling for synthesis will eventually grow powerful enough to cause science and religion to change their respective courses and the underlying process of convergence will become dominant. Convergence will rise past divergence when religion and science both recognize that matter in its highest manifestation unifies everything, spiritual and physical. "Man, the centre of perspective, is at the same time the centre of construction of the universe. And by expediency no less than by necessity, all science must be referred back to him."[73] This recognition comes with the rising feeling of failure and perception of the inherent disability of limited modes of thought to explain even its own antecedents and to solve anything except particuliar problems.

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[72] Ibid., p. 283.

As religion and science turn toward one another in an attitude of convergence, the process of convergence will gain momentum. Studying an object in common, they will generate insights in common. Moreover, the insights developed by religion will be adopted by science and vice versa. More and more, science and religion will find they share not only an object of study but also common material.

> "Religion and science are the two conjugated faces or phases of one and the same act of complete knowledge--the only one which can embrace the past and future of evolution so as to contemplate, measure and fulfil them.
>
> In the mutual reinforcement of these two still opposed powers, in the conjunction of reason and mysticism, the human spirit is destined, by the very nature of its development, to find the uttermost degree of its penetration with the maximum of its vital force."[74]

Eventually, common theories will be developed leading to a common theoretical structure. At the apex of the process of convergence is a single, integrated science. Such a science is the logical end to an ever expanding mutuality of relationships and the logical concomitant on the intellectual level to the basic unity on the material level.

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[73] Ibid., p. 33.

[74] Ibid., pp. 284-285.

This process parallels the process of convergence that is a typical event in biological evolution. It is that process which closes one phase of organic life. Its end point, an organic unity, is a point of fulfillment for the organism which anticipates a beginning of a new and significant growth. The whole process, beginning, divergence, convergence, and end represents a critical step in the expansion of consciousness.

This is the great map of what Teilhard calls the Noosphere--the sphere of the development of human intelligence. The word for divergence is awareness. In divergence man comes to know the universe around him. Man moves out from himself, from what is close to him, embracing more; until he finally engages the universe as a whole. As he moves out, intellectual activity heightens, growing into an ever greater ferment. The word for convergence is understanding. Man begins to search himself anew, seeing himself in the light of the universe of his knowledge. He begins to control his intellectual activity as he becomes more at home with it. He coordinates his thinking, then integrates it. In the end, he comprehends all that he has probed with his mind.

> "For if the power of attraction between simple atoms is so great, what may we not expect if similar bonds are contracted between human molecules? Humanity, as I have said, is building its composite brain beneath our eyes."[75]

The organic evolution of consciousness, the lead shoot of the whole of evolution, is being worked out in the myriad details of the daily existence of all mankind. Teilhard is not simply fitting the facts of history to convenient interpretation. Rather, he looks to history to point in the direction that we must follow. The pattern of evolution is being fulfilled in us insofar as we fill a certain part of it. What we make, makes some part of the whole. How we act is important to the process.

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[75] The Future of Man, pp. 177-178.

Evolution has a great and increasing impact on the individual person.

> "Mankind is now caught up, as though in a train of gears, at the heart of a continually accelerating vortex of self-totalisation.
>
> There we have the brutal fact that we must now try to understand."[76]

In a sense, the whole structure of the universe is coming to bear on man, hence on men. Individuals are faced with a terrible choice. If the individual does not engage the process, the individual will become a negative factor, flotsam pulled along in the great tide. As the tide grows greater, the man who fails will grow weaker and more alone. The individual, on the other hand, who chooses humanity will join others like him and participate in building the earth.

> "To adopt the hypothesis of a final divergence of Life is, in fact, to introduce biologically into the thinking part of the world an immediate principle of disintegration and death....So there is no way out, if we wish to safeguard the pre-eminence of the spirit, except by taking the one road that remains to us, which leads to the preservation and further advance of consciousness--the road of unification."[77]

Stated in these terms, the choice seems clear. But, in actual fact, the choice presented to the individual today is not an easy one. The choice is prior to the saving grace of the new science. Moreover, it must be made most often without the grace of the vision. The choice that evolution presents amounts to a test of the collective faith of mankind in the future. If participation in its processes is not forthcoming, evolution halts. "If progress is a myth, that is to say, if faced by the work involved we can say: 'What's the good of it all?' Our efforts will flag. With that the whole of evolution will come to a halt--because we are evolution."[78]

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[76] Man's Place in Nature, p. 100.

[77] The Future of Man, pp. 51-52.

This puts a great deal of pressure on the new science. The new science must control from the beginning or evolution stops and with it goes the possibility of developing the very knowledge that justifies it. The new science is faced with a dilemma. The vision justifies the new science. But the vision is open to only a few. In the end, man must support the development of the new science in the light of the vision on the basis of the authority of the few, "The UNION SACREE', the Common Front of all those who believe that the world is still advancing: what is this but the active minority, the solid core around which the unanimity of tomorrow must harden?"[79]

As the focus is narrowed more to the present, Teilhard's arguments become more personal and concrete. Having intellectually justified the faith in man by joining the evolutionary model to the facts of our present situation, he makes this intellectual apprehension relevant by defining this juncture in space-time as being critical for the development of the noosphere. A collective act of faith is required for further advance. The urgency of this act of faith is underlined by reference to the belief that such an act of faith is necessary if the individual is to save himself from alienation. Evolution and the person, according to Teilhard, are mutually dependent; the one for reality, the other for meaning. The choice is more than between belief and unbelief, it is between life and non-life. Expressed in these terms, there is no real choice. Hence, Teilhard can be confident evolution will succeed. Again faith, evolution, and human necessity form a neat circle of mutual justification. In making this new turn in the spiral of Teilhard's synthesis, we discover the requisite act of faith at which Teilhard has pointed in the beginning has become more clearly identifiable as it has become more immediately compelling. following the direction of Teilhard's thought, the next step is to explore the nature of the development of the new science.

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[78] Phenomenon of Man, p. 231.

[79] The Future of Man, p. 80.

The critical stage which surrounds the crucial point of convergence is divided into two distinct periods. One period, before reaching the point of convergence, is the period of germination. The period immediately following is a period of ripening. Though the process may be defined abstractly, and its parts located in terms of itself; the process cannot be measured in terms of space-time and its parts cannot now be located in real terms. There is no general timetable, nor can there be an established relationship among events until the new science is developed. The process, to our eyes, is still fluid. The startling symmetry of Teilhard's conception of evolution rising to a point of convergence is a quality still confined to the surface.

The process of convergence on the intellectual plane is the emergence of the new science. During the process of emergence, the new science is in the act of consolidating all the elements of psychic energy. "Growth of consciousness=effect of organisation....Intellectual concentration, manifest in the unification of our knowledge in a coherent system =

science."[80] At the culmination of the process of convergence, the new science represents both an advance on and a consolidation of the psychic activity of all the elements. The organic unity of all, real and ideal, dominates. The end of any process which Teilhard sees is the actualization of the movement of the process. Therefore, the end defines the process. The point of convergence then is the image of the process of convergence, "...When anything really new begins to germinate around us, we cannot distinguish it-for the very good reason that it could only be recognized in the light of what it is going to be."[81]

The explanation of the past is one of the great problems presented to science. During the process of emergence, the explanation of the past will grow much fuller. At that point where the explanation of the past becomes fully possible, the new science exists because the past can be explained fully only from the view point of the synthesis. The wholeness of the past demands this. The wholeness gives a new view that is more than the whole of the sum of the parts.

> "The more I think about these things, therefore, the more I see (without any pessimism but rather a bound of hope) the possibility of an exhaustion of the past growing before my mind....solidly supported on the axes which have helped him to fix the pattern of history, he will have the right to turn all his efforts to the discovery and utilization of the living energies that surround him.
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> And it will then be the season for a march entirely forward which will indeed know no limits."[82]

The last step in the consolidation is like the final couplet of a

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[80] Ibid., p. 69.

[81] Phenomenon of Man, p. 121.

[82] The Vision of the Past, pp. 190-191.

Shakespearian sonnet. It is a new light. Everything seen before is seen differently.

The development of our understanding of the past has an important practical effect.

> "For it then becomes apparent that this accumulation of features, bewildering at close quarters, does in fact outline a face: the face of Mankind gradually acquiring the knowledge of its birth, its history, its natural environment, its external powers and the secrets of its soul."[83]

The understanding of the past heightens critical ability. An historical knowledge of evil is a step toward eliminating evil in the present and the possibility of evil in the future. The elimination of diseases like yellow fever are local examples of this phenomenon which will grow in proportion as evolution advances. When we reach the point of convergence, this capacity will become universal. From the new perspective, man will be able to apply a filter to the past; man will be able to improve his heritage in a way similar but far in advance of the operation of natural selection.

> "So far we have certainly allowed our race to develop at random, and we have given too little thought to the question of what medical and moral factors must replace the crude forces of natural selection should we suppress them. In the course of the coming centuries it is indispensable that a nobly human form of eugenics, on a standard worthy of our personalities, should be discovered and developed."[84]

The point of convergence happens when the new science becomes organically one. During the period of emergence, the new science lives a near half life, living more or less whole in the minds of a few visionaries and in the elements of its synthesis which become part of the existing science of the age.

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[83] The Future of Man, pp. 31-32.

[84] Phenomenon of Man, p. 282.

> "For how can we fail to discern in the simultaneous rise of Society, the Machine and Thought, this threefold tide that is bearing us upwards, the essential and primordial process of Life itself--I mean the organic infolding of Cosmic matter upon itself, whereby ever-increasing unity, accompanied by ever-heightened awareness, is achieved by ever more complicated structural arrangements?...even at this early and half-passive stage of our hominisation..."[85]

But these parts exist in isolation. The elements are still groping toward one another; their energy is directed inward. That is, the energy is being used by the organism itself. When the process is completed, all the psychic parts will be organized together. Not only will the individuals participating in the structure pool their own energy, but there will be a bonus in terms of a new energy generated in a facile and complete interaction.

> "Thus, a new and exceptionally central and direct chain would be formed within the noosphere in the process of compression: cerebralisation (the higher effect and parameter of cosmic convolution) closing in upon itself in a process of self-completion; an auto cerebralisation of mankind becoming the most highly concentrated expression of the reflective rebound of evolution.
>
> ...With the appearance on earth of "compressive socialisation" (in which the important factor is no longer the multiplication of individuals but their ultra-cerebralising arrangement) a new system of biological evolution is in fact introduced. In this, individuals, while still functioning as links through their germen (prolongation of the phyletic in the human, in the form of hereditary fibres that are still recognizable although more and more tangled) assert themselves, through their phren as constituent elements of the "noospheric brain" (the organ of collective human thought).*"[86]

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*The last section of this quotation is a note added to the main body by Teilhard.

[85] The Future of Man, p. 231.

[86] Man's Place in Nature, p. 111.

The psychic energy of the new science when it is finally organized can be directed outward. The same effect of magnification of individual scholarly effort, only raised to a much higher power, will be attained at the point of convergence as is exemplified by the scientific research teams of today.

At the point of convergence much of what had been before the scientist is completed. At the same time, a greater intellectual power is open to him. The new science posesses, at the outset, a positive balance of intellectual power. It has intellectual capital without obligations against it. This happy situation permits the new science to look outward and to the future.

The emergence of the new science means that experimentation and exploration will be in a new key.

> "The acquisition of a sense of the future is a biologieal phenomenon which has its own time. Perhaps it will take many generations for it to extend to its total objective, humanity. And throughout this period, the work of the geologists, of paleontology and prehistory must be maintained."[87]

At this point of maturity, the new science will present a complete theoretical structure which, in turn, will generate hypotheses which must be tested. The process of fleshing out the new science will go on in an organized, precise way. Science does now and will always proceed methodically. But, this does not imply that it will proceed without a special élan born of the excitement of new discovery. The contrary is true. The new science will proceed in a more methodical fashion because the vista which the new science opens to the scientist is incomparably exhilorating.

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[87] The Vision of the Past, p. 189.

The exhilaration that will come upon those who gaze upon the new horizon will excite the same devotion and determination that excited the navigators during the Age of Exploration. In the new light, no task or detail could be too mean. The point of convergence, then, is something very much more than an end and a fulfillment. It is both an intellectual and psychological thrust into the future. This thrust is of startling impact. It is one of the prime determinants in and on the course of evolution. The new science is a consensus. It is the agreement of minds and the various modes of intellectual life on the principle inspired by the vision.

> "...what must characterise a mankind...is a higher state of collective reflection; this will be expressed not in a continually greater expansion and diversification of our field of affectivity and knowledge, but much rather by a continually more narrowly localised view of the world (Weltanshauung). In this sense, we might say, theoretically and ideally speaking, that mankind will come to an end, when, having finally understood, it has, in a total and final reflection, reduced in it everything to a common idea and a common passion."[88]

The description of the new science at the point of convergence must be regarded in the same light as Omega in respect to the whole of evolution. The new science at the point of convergence is not only the goal we, as we act in faith, seek to attain; it is the model for our activity. The ultimate being of the new science defines its own process of becoming. The process here described is analogical in its structure to evolution as a whole. This analogy is justified by Teilhard's metaphysical principles which establish the central concept of organic unity upon which this perspective on the future rests.

Yet, after all is said about the confluence of sciences and the birth

[88] Man's Place in Nature, p. 114.

of the new science, it is still even to Teilhard a dream. The point of convergence is a distant goal which Teilhard hopes will move man to take action directed toward immediate problems.

> "...it is the power of invention that begins to grasp the evolutionary reins....a change, as we now know, entailing two decisive consequences for the future. The first is an unlimited increase in the aura of influence radiating from every living being; the second, even more radical, the prospect afforded to a growing number of individuals of being joined together and ever more closely unanimised in the inextinguishable fire of research pursued in common."[89]

Standing before us is the challenge of divergence and the opportunity to begin the process of convergence. This means the twentieth century must begin to think the new science.

Thinking the new science means that man thinks organically. This is why, not incidentally, the end of thought is science, and not philosophy or even religion. Science grows organically. Its peculiar pattern of growth is like the pattern of evolution: science extends itself in steps which, after the fact at least, appear to be necessary.

The organizational principle is provided by the prevailing theory, evolution.

> "Whereas for the last two centuries our study of science, history, and philosophy has appeared to be a matter of speculation, imagination and hypothesis, we can now see that in fact, in countless subtle ways, the concept of Evolution has been weaving its web around us. We believed that we did not change: but now, like newborn infants whose eyes are opening to the light, we are becoming aware of a world in which neo-time, organising and conferring a dynamic upon Space, is endowing the totality of our knowledge and beliefs with a new structure and a new direction."[90]

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[89] The Future of Man, p. 293.

[90] Ibid., p. 85.

The theory not only explains the known facts, it orders them. Besides this function, the theory suggests hypotheses which form part of the organizational structure. The theory, in this respect, directs speculation. It determines how speculation is ordered through the limitations it imposes logically on the hypothetical framework. One is reminded of how the foundation and materials of a building, combined with the laws of stress, limit the form a building can take. Of course, theory is not the sole determinnant. Observation, insight, and inspiration interact with the theory to mold the framework. The previously developed structure provides direction and criteria, imagination is the positive force which produces the ideal element to fill a given demand. The significant factor here is the strength that organization gives to imagination; it allows brilliance to sustain itself as it preserves it from mistakes. Organic growth strikes the perfect balance between freedom and control.

> "This explains how it is that as the unification of the earth progresses, an ever denser and more active atmosphere of inventive and creative interests forms around it: at first you would take it for an insubstantial vapour wafted by every breath of whim or fancy--but in fact it is a formidable, irresistible medium from the moment when, caught up and spun round in the whirlwind of a powerful aspiration it begins (as we can now see with our own eyes) to convolute upon itself, and so attack the real as one single spearhead, following one single concerted direction..."[91]

While the superstructure of science is pushed upwards, while its spiderwork is being extended into the unknown, other parts of the structure are being refined add finished. This process is as solid as the former process is precarious. As the superstructure climbs, and is sometimes radically changed by daring speculations, the framework is given substance in a day-to-day routine of adding more and more information.

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[91] *Man's Place in Nature*, p. 107.

Science is elaborated in bits and pieces. The whole process rests on the acquisition of empirical data. It is painstaking but it is sure. The essence of science is the slow but steady process of hypothesis, test, proof, consensus, and a further hypothesis which incorporates all that has gone before it. Science is truly organic because nothing is lost, everything contributes to its advance. It is organic because all its elements interact and this interaction generates power. Finally, science is organic because its energy is controlled and directed. Its strength is in its unity.

> "Life can progress on our planet in the future (and nothing will prevent it from progressing, not even its own internal servitudes) by throwing down the barriers which still wall off human activity, and by giving itself up without hesitation to faith in the future. We must put in the forefront of our concrete preoccupations the systematic arrangement and exploration of our universe, understood as the true country of mankind. The material energy will circulate, and (more important still) spiritual energy, now corrupted by the petty jealouses of modern society, will find its natural outlet...The time has come to realize that research is the highest human function, embracing the spirit of war and bright with the splendor of religion."[92]

The fact science is organic has significant implications. It establishes science as a suitable analogue to evolution itself. This has the effect of both insuring the place of science in evolution and throwing the weight of science into the argument justifying the evolutionary model. Moreover, it provides a way to speculate on the growth of science and a standard whereby that growth may be judged. Again, Teilhard completes a circle. A new level is added to the development of the new faith. As this

[92] Building the Earth, p. 55-56.

level is reached, some of the implications of a commitment to the new science become apparent.

The virtue of unity, for instance, does not come to evolution free of disquieting implications. The tieing together of different parts in a continuing operation requires control. Building requires order; the individual must participate in the collective discipline and the part must be molded to the whole. As Teilhard puts it,

> "...making them accept the restrictions and sacrifices imposed by a certain human selection and determining them in the end not to squander the capacity for love, but to subliminate jealousy for the purpose of ultimate union."[93]

No matter how much a common adherence to a theory or a vision may ameliorate the fact, the harsh reality of sacrifice remains. Science is a collective enterprise. The collective good must be looked to first. This need for internal control is much greater in the process of developing the new science than has been true in any previous scientific endeavor. For the developing new science is at once more complex and more intensive: its scope is greater, its ends are far more ambitious.

Besides the necessity of controlling its own complex organism, science must also control the objects which it studies. This statement is a truism arising from the terms of the empirical method. If one depends on observation, one must know the facts of the observation itself and assure himself that the method is not self-defeating. The observer, then, must govern the operation. Even though this is a truism, the implications for the new science are immense. The simple fact is that the breadth of control must be in proportion to the bulk of the new science. Almost as amazing as the weight of the conclusion itself is the almost casual ease with which we reach it: a universal science demands universal control. The development of this control must keep pace with the development of the new science itself.

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[93] Ibid., p. 95

> "This super-compression, in turn, automatically produces a super organisation, and that again a super "con-sciousation": that, in turn, is followed by super-super-compression, and so the process continues...continues indefinitely to build up its own intensity, as happens with a properly tuned amplifying system...The mechanism of the economico-technico-social forces whose network has now been spreading insidiously over the world for a century, will find it unmistakably evident that it is absolutely impossible for us to escape the forces that draw us together..."[94]

Throughout this chapter, the convergent movement of the different modes of thought has been emphasized. That is to say, movement on a single plane, the intellectual plane, has been examined. Teilhard does not see movement as happening on a single plane. Any such understanding of Teilhard would be a patent distortion. Teilhard sees movement as happening on all levels as all things move to a convergence. The model for movement is, in short, not a triangle but a cone. Hence, as things intellectual move closer together in the growth of the new science, the new science is moving closer to the center of evolution. As the new science gathers vitality it contributes more and more directly, to evolution itself. Evolution is better understood. Evolution is becoming open to direction from within itself, open to control. It is becoming more necessary to exercise control. Note how again one proposition demands the admission of another because of the logic of the model.

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[94] Man's Place in Nature, p. 99.

The separation of thought and action is being broken down.

> "Accordingly the march of humanity, as a prolongation of that of all other animate forms, develops indubitably in the direction of a conquest of matter put to the service of mind. Increased power for increased action. But, finally and above all, increased action for increased being."[95]

Thought itself is becoming more concrete; it rests more securely than ever in the empirical fact. Action must conform more to a pattern. As the world grows more complex, what is unplanned is bound to become more dysfunctional. As more facts are developed, abstract speculation is less necessary and, indeed, it too is dysfunctional. Interdependence grows apace; thought and action are also to become organically one.

The action being referred to is primarily human activity. The object to which the new science addresses itself is human life, for human life is the spearhead of all life,

> "From this point of view, if we are going towards a human era of science, it will be eminently an era of human science. Man, the knowing subject, will perceive at last that man, 'the object of knowledge, is the key to the whole science of nature."[96]

This relationship, because of the nature of new science, establishes an interaction between human life and the new science which leads inevitably to integration.

The new science as it develops is becoming the controlling principle of human activity.

> "But let the time come, as come it will, when the masses will realize that the true human successes are those which triumph over the mysteries of matter and of life. At that moment a decisive hour will sound for mankind, when the spirit of discovery absorbs all the momentum contained in the spirit

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[95] Phenomenon of Man, p. 248.

[96] Ibid., p. 281.

of war."[97]

First, it comes to dominate the purposiveness of human endeavor. As it grows, more effort is concentrated on its development. As the human resources of talent, energy, and material become focused, the range of human activity becomes narrower. As the right choices grow clearer, the necessity of maintaining open options is lessened.

Secondly, a pattern to facilitate observation must be imposed on human activity.

> "The science of man is the practical and theoretical science of hominisation. It means profound study of the past and of origins. But still more, it means constructive experiment pursued on a continually renewed object. The program is immense and its only end or aim is that of the future."[98]

The new science is experimental. The object of its study is human activity. As science and action grow closer, humanity becomes more and more the laboratory for the new science. Just as a laboratory must be organized, humanity must be organized. In the end, human activity is the only valid test for the new science. No matter how special the benefits of this evolutionary advance, the harsh fact of control cannot be veiled.

Finally, as the new science develops, it must look to its foundations. It must consolidate the advances it makes.

> "Eugenics applied to individuals leads to eugenics applied to society...Reflective substance requires reflective treatment. If there is a future for mankind, it can only be imagined in terms of a harmonious conciliation of what is free with what is levelled up and totalised."[99]

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[97] Building the Earth, p. 73.

[98] Phenomenon of Man, pp. 281-282.

[99] Ibid., p. 282.

In terms of action, this means that a prescribed activity must be repeated as many times as necessary. If this activity represents a change, then this means control or will must be exercised until the activity passes from the artificial to the natural, from the abnormal to the normal. Unless the wastage of a gradual adoption of the superior activity or part is acceptable, organization and determination will be required. Teilhard does not hesitate in his choice. The tools of organization are as proper to man as natural selection is to biological organisms. In order to control evolution, the means to this end must be used. Man must accept the discipline that evolution demands.

This concentration and control becomes greater naturally as the new science becomes more successful. The great practical benefits of an advancing technology form the engine which moves science ahead. Man cannot now, and will not in future resist the promise of advance in the quality of his life.

> "...it tells us what constitutes the hidden motor or movement of life...Why do we ourselves seek and why do we invent? In order to be better; and, above all, in order to be more, stronger and more conscious. Why, therefore, does all therest of life stir and strive? In order--there can be no doubt --to be more, to understand better. It must be so, for life invents!"[100]

In this case, the new science will be able to take advantage of a trend that already exists.

Technology is spreading. It occupies a position of increasing importance in everything man does.

> "We are, at this very moment, passing through an age of transition.

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[100] The Vision of the Past, p. 72.

> The age of industry; the age of oil, electricity and the atom; the age of the machine, of huge-collectivities and of science...life is taking a step, and a decisive step, in us and our environment. After the long maturation that has been steadily going on during the apparent immobility of the agricultural centuries, the hour has come at last, characterized by the birth pangs inevitable to another change of state."[101]

Society and its subsidiary organizations are becoming even more technically orientated, and in the process are becoming more dependent on technology. The fact that examples of this phenomenon are omnipresent is a convincing demonstration of the depth of the movement. One need only pause long enough to consider the impact an electrical blackout has on our daily lives to see the point. Since technology itself is dependent on the insight of the scientist and since insight will come to be more identified with the new scientist, then society will come more and more to depend on the new scientist,

> "But the moment will come--it is bound to-- when man will be forced by disparity of the equipage to admit that science is not an accessory occupation for him but an essential activity..."[102]

The new scientist will hold the increasingly important key to modern life--technology. Put bluntly, the scientist becoming new scientist is in the process of acquiring power. The knowledge of the new scientist will come to dominate society as it will dominate the intellectual world. The act of faith inspired by the vision has found its concrete object in the person of the new scientist. The nature of that act of faith is seen most clearly at this point. The logic of the need for visionary action on a universal scale has been inexorable. Vision implies leadership. Leadership implies power. Universal power implies organization. Organization implies a disciplined elite. The conclusion is controlled activity. Stated so boldly, one may be surprised Teilhard could arrive at such a formula with so much ease. But, was Teilhard not a Jesuit? Does not being a Jesuit mean the acceptance of a similar logic? The necessity to act demands the will on the part of the mass of mankind to submit to the direction of those men who will generate the mechanism which is destined to substitute for the remote control of natural selection in evolution.

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[101] Phenomenon of Man, p. 213.

[102] Ibid., p. 279.

The elite of merit is a power elite. No matter how true it may be that the direction provided by the new science is most felicitous; it is also true that man is becoming less capable of rejecting it. The new scientist is rising to the capacity for imposing his will without check on mankind. This is awesome power for a group which, because of the esoteric nature of the new science, is small. But, no matter how discomfiting, this is only natural.

The imperial ambitions of the new science makes power; in the sense of being able to impose claims, a necessity. There must be a way to extend the operations and effects of the new science beyond the few who have the vision. Power here does not imply coercive force. It does imply that the new science will have its directives carried out on the basis of its authority rather than a rationale or an inducement. This factor is a sine qua non of expansion. Because the nature of the scientific process is one of building or of a continuing application of energy rather than a great burst of force, this power must be constant. Power must be sustained throughout the process.

The new science generates most of its "power" in proving its own inherent value. But dependence on this source is not without its difficulties. The fact that the new science is in a state of becoming means not only that it has not come to a state of full authority, but also that the need to control will be ahead of its merited authority until the end. Further, the new science has merited the least authority at the outset, This is the time when it requires a great deal of control to find its feet and can least afford disruption. At its inception, the new science must be indulged. It must have the power to carry itself over its own imperfections. It must have a source of power outside of its own merits and the zeal of those few who believe in it through the vision. In the beginning, an insufficient scope in the commitment of man to the new science must be supplemented.

If this is true in the intellectual realm, it is doubly true in the realm of activity, where even the most certain intellectual authority is sometimes ignored. Yet, it is crucial to the new science that it establish its authority in this area. If one were to glance back over the entire argument to this point, one could find a pattern repeating itself. No matter what the point at question, we began with our feet planted firmly on the realm of ideas, thought. But as the discussion of the point spun itself out, we were drawn more and more into the realm of concrete action. This is where, in the end, it rests. The interaction which moves the new science takes place within society and hence within the frame of the political community.

> "The whole question in this crisis of birth, is the rapid emergence of the soul which by its appearance will organize, lighten and vitalize the mass of stagnant and confused material. But this soul can only be a "conspiracy"

> of individuals who associate themselves to raise to a new stage the edifice of life. The resources we enjoy today, the powers and secrets of science we have discovered, cannot be absorbed by the narrow system of individual and national divisions which have so far served the leaders of the world. The age of nations is past. The task before us now, if we would not perish, is to shake off our ancient prejudices, and to build the earth."[103]

Since the key to the new science is social control, social power must be held. This brings the new science into direct contact with the state, the repository of ultimate social power.

The state must actively participate in the process, to a higher and higher degree, to insure the continued interaction of man and new science in evolution.

> "Let such organizations as the U.N. and UNESCO continue to multiply and flourish...But we must realise that we shall be building on sand so long as bodies of this kind are not agreed on the basic values and purpose underlying their projects and decisions--that is to say their attitude toward human totalisation...Without realising it--and this is root of our present political and ideological confusion--we are still desperately clinging to the old concept, now become unlivable, of a world in a state of human immobility,...We cannot wait passively upon the statistical play of events to decide for us which road the world is to take tomorrow. We must positively and ardently take a hand in the game ourselves."[104]

Though the active participation of the state may add a new dimension, the character of this participation is cast in the same familiar terms. First, the interaction of the state with the other participants, science and religion, rests on an ever deepening interdependence. The state, understood as the political community of man, needs the insights of the new science to survive. The environment through which evolution is carrying us and will carry us makes this demand. Second, the state too is being drawn toward convergence. The role the state fills in the growth of a new world grows to a point where it overshadows everything else that it does.

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[103] Building the Earth, p. 54.

[104] The Future of Man, p. 256.

> "The truth is that, as children of a transition period, we are neither fully conscious of, nor in full control of, the new powers that have been unleashed. Clinging to outworn habit, we still see in science only a new means of providing more easily the same old things. We put Pegasus between the traces. And Pegasus languishes--unless he bolts with the band-wagon! But the moment will come--it is bound to--when man will be forced by the disparity of the equipage to admit that science is not an accessory occupation for him but an essential activity, a natural derivative of the overspill of energy constantly liberated by mechanization."[105]

In the beginning, the mutual needs of science and state are not so pressing; their relationship opens on a note of convenience. The state finds enticing the material benefits that science offers. It is willing to pay for them. From the point of view of science, the state is the agency best able to provide useful support for its projects. Where else could science find a greater store of capital, less concern for profit, ability to provide needed human resource, and the capacity for organization and coordination. In Teilhard's eyes, this is a natural relationship ultimately sanctioned by a shared concern, man. The state can provide the new science with the wherewithal to take the preliminary steps in its development. It is for the common good that it should be so.

As the relationship between science and state progresses, the bonds between the two grow stronger. The new science, nearing the point of convergence, becomes more directly and deeply involved with man. The direct contact with man growing in evolution becomes its life blood; the profound thoughts which will grace and complete it are gathered only where the trained imagination is able to observe and experiment in the concrete reality, unfettered by the slightest abstraction. This contact, as it becomes more delicate, must be preserved from the slightest obstruction. Only the State, with its framework of power, can guarantee this kind of control over man. The latter steps in the development of the new science demand an organization from which there is no appeal.

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[105] Phenomenon of Man, p. 279.

The state performs the function, to greater and greater degrees, of organizing the resources necessary to provide a platform for intellectual advance. Differences in scope aside, the relationship is very similar to the existing arrangements prevalent in the American university system. State owned physical plants, grants, dissemination of information, and along with these, control, will keep pace with our movement into the scientific age. There is no sense in asking which institutional structure controls. They both control man and their overlapping structures make them more and more indistinguishable. The creation of the new science is a single enterprise. It is being carried forward by a single organism. The political community is becoming the scientific state.

Chapter IV

> "How depressing is the spectacle of the scattered human mass! A turbulent ant-hill of separate elements whose most evident characteristic, excepting certain limited cases of deep affinity (married couples, families, the team, the mother country) seems to be one of mutual repulsion, whether between individuals or groups. Yet we nurse in the depths of our hearts the conviction that it could be otherwise..."[106]

In this chapter, the same process that was dealt with in the previous chapter will be discussed from a different perspective, that of the Scientific State rather than the New Science. The remarkable symmetry with which Teilhard lays out the movement of evolution again makes itself apparent. This unified pattern is its own justification; the parts of the organic whole justify each other in an argument that takes the form of a great spiral. Once the premise that evolution is an organism explained by the vision is accepted, the molding of the facts of history and of the present to this pattern, and the extension of these facts trend into the future, is an inevitable conclusion. Whatever the content of the future life or the New Science, speculation on the peculiar features of which Teilhard eschews, the shape of the two are clear and determined.

This chapter, then, follows the movement toward greater organization that parallels and finally merges with the growth of the new science.

If we narrow our vision to the vertical dimension, the one thing brought home to the observer is a tragic paradox: there is at one and the same time a single humanity not divisible into species and yet there is much repulsion, even antagonism, among individuals and groups of men. Comparing the observations that can be made of various epochs in history, the conclusion that this unity and diversity is an immutable law, part of the human condition itself, impresses itself more deeply on the mind. But, Teilhard says, change the perspective, examine reality in more than a single dimension, and the paradox dissolves itself. If we view social life as an organic movement in space-time, the familiar pattern of convergence-divergence becomes again apparent.

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[106] The Future of Man, p. 281.

> "Once we have raised the completely artificial barrier that still (by habit or convention) separates the two processes of socialisation and vitalisation, we immediately find that a basic simplicity (the same as we have already met in the pre-reflective zones of the biosphere) can be distinguished beneath the apparent irregularities and disorder of the human adventure."[107]

What is happening beneath all the local conflict is that social organization is becoming more comprehensive and the unity that it represents is becoming more meaningful. This basic movement toward greater unity feeds on the fruits of divergence. In terms of the basic forward movement of evolution, the social clusters that now spot the surface of the human mass are opportunities for man to develop better social forms. Moreover, by the laws of evolution which Teilhard has developed, their very success denotes a nearing of the point where these socio-human organisms will have completed their evolutionary task. Exhausted of their potential; they will give way to a new set of organisms. The breaking up of an imperfect organization, like the breaking down of an imperfect system of thought, is the first step toward a more perfect organization. Progress on all levels treats imperfection with a sure and even hand; progress is indifferent to the bitter fate of the failure. The partial, the incomplete are doomed on all levels because all lines are moving even closer to a point which ends their separation as it completes the thrust of their separate existences.

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[107] Man's Place in Nature, p. 88.

> "The same mechanism operates in man. Divisions start. Phyla take shape. But then everything takes place as if a new influence were coming into play: an influence which not only prevents the branches from falling apart, but also uses their diversity to obtain, by effects of combination, superior forms of consciousness."[108]

Teilhard posits social organization moving closer to thought as they both develop. Historically, Teilhard claims information is taking the place that custom once filled; theory, or ideology, is taking the place of myth. Theoretically, the strands of human endeavor are being drawn together by the irresistible force of Omega: many threads have spun off of Alpha, only to reach a point where some will be wrapped together and spun out in a new form while still maintaining a separate but enhanced identity. All the parts of evolution, and the social element is prominent, are likened to cells extended in space-time. All the cells are seen to be models of the organism itself. Therefore, Teilhard calls for an examination of the history of peoples in terms of organic evolution. Tribes, peoples, nations, he says, fit into the patterns which biology describes. Looking back to the time when man first emerges, human society meant little. Social life is hardly at a level above the life of the herd. But already tangential and radial energy are at work and gradually the independent cells of human existence become attracted to certain centers.

> "From Neolithic times onwards the influence of psychical factors begins to outweigh-and by far- the variations of ever-dwindling somatic factors. And henceforworth the foreground is taken up by the two series of effects we announced above when describing the main lines of hominisation-(1) the

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[108] The Vision of the Past, p. 207.

> apparition above the genealogical verticile of political and cultural units; a complex scale of groupings which, on the multiple planes of geographical distribution, economic links, religious beliefs and social institutions, have proved capable, after submerging 'the race' of reacting between themselves in every proportion; and simultaneously (2) the manifestation-between these branches of a new kind-of the forces of coalescence (anastomoses, confluences) liberated in each one by the individualisation of a psychological sheath, or more precisely of an axis-a whole conjugated play of divergences and convergences."[109]

In the surge of evolution the family becomes a more and more meaningful unit; in terms of size it begins to extend itself beyond man and wife, in terms of quality, members of one family become more distinguishable from members of another family. Man gradually loses his common but superficial identity as he develops a deeper relationship with a few humans. Social evolution has commenced. As the potential of the small groups for certain activities made essential by the environment exhausts itself, the simple organism of the family gives way to the tribe. This forces the development of new concepts of social identity. Social relationships take on a new, extended meaning. Custom and the idea of a continuing social organism have arrived. A deeper relationship, true, but again, just as with the family, tribes represent new lines of distinction adding to older ones not entirely erased. As the process continues, fragmentation becomes more pronounced and significant.

The deepening separation, a product of the repulsion-attraction syndrome which spurs evolution on, generates friction and conflict. Thus, violent tension becomes the mask of, but also is a part of, movement toward unity. The scale of violent conflict grows as the lines of division deepen, but also, as social relations grow more profound and broad.

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[109] Phenomenon of Man, pp. 206-207.

> "Every new war, embarked upon by the nations for the purpose of detaching themselves from one another, merely results in their being bound and mingled together in a more inextricable knot. The more we seek to thrust each other away, the more do we interpenetrate."[110]

An important factor that the violence hides is that many of the old separations are being bridged, so that even though the intensity of fragmentation may have risen, the instances of fragmentation, that is cases where the force of repulsion overshadows that of attraction, grow less.

> "So, in spite of the quarrels, which it disturbs and saddens up to see, the idea that a concentration of humanity is taking place in the world and that, far from breaking up, we are increasingly coming together is not an absurd one. Indeed, without it, I cannot find any explanation that can be applied without contradiction to the phenomenon of man as a whole."[111]

The reader should note that the foundation for Teilhard's perspective on history is his conception of evolution as moving from Alpha to Omega. It is the sweep of the movement which subsumes and directs all particular facts to the unity of an end. Such is the force of the Teilhardian metaphysics. Teilhard's analysis is a constant imposition of the same abstract form on every level of reality. Teilhard uses these particular applications to construct his conception of the dynamic spiraling of the universe to a point. This conical conception of evolution molds his selection and interpretation of historical events.

Continuing with Teilhard's historical analysis, as man has separated from himself, he has spread over the earth. The history of this movement has been a history of triumph.

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[110] The Future of Man, p. 127.

[111] The Vision of the Past, p. 211.

> "It is because it (i.e. the human zoological group) became capable, through its attainment of reflection, of assembling and buttressing together indefinitely its constituent elements, that mankind, the last-born of evolution, was able to so rapidly establish itself throughout, and ultimately above, all the rest of the biosphere."[112]

As man has moved out, he has brought all the world, all of evolutionary movement, into his own movement. He has consolidated his place as the vanguard of evolution. This horizontal movement is complemented by an upward movement.

> "In the human zoological group, the remarkable power of expansion that characterizes it is obviously linked with advances in socialisation...In such circumstances it is not surprising that when we look back on the populating of the world it seems to us to have been brought about in a succession of ever widening pulsations: each new pulsation corresponding to a new and better social arrangement of the hominised mass."[113]

Every age brings a more complex, but at the same time a more flexible, apparatus. As man advances he becomes capable of doing more things better by cooperative effort.

This upward spiral in the capacity to work is reflected in the accumulation of human accomplishment and the outward spread of its benefits. Man has developed both the natural means and necessary talents not only to control evolution, but push it forward. By conquering the earth, man has acquired a vast reserve of energy that he is becoming able to apply to evolution.

> "Under the combined influence of machinery and the superheating of thought, we are witnessing a formidable upsurge of

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[112] Man's Place in Nature, p. 82.

[113] Ibid., p. 82.

> unused powers...Peace through conquest, work in joy. These are waiting for us beyond the line where empires are set up against other empires, in an interior totalisation of the world upon itself, in the unanimous construction of a spirit of the earth."[114]

This conquest of the environment marks the point when the entire process begins to turn back into itself; that is, when the centripetal forces of divergence begin to give way to the centrifugal forces of convergence. Teilhard, then, believes history shows the process of fragmentation is well along. Humanity has passed beyond many cultures, many forms of organization. All of these have made their unique contribution to the development of man. If nothing else, they represent a possibility that has been tried and found wanting. Or, if they have been successful, they have allowed men to live meaningful lives; to explore their own potentials, to create, and thereby help build the store of human accomplishment. Fragmentation has allowed man to advance rapidly on a broad front by allowing him to diversify. Diversification has allowed man to take on many activities at once. It is this multisided industry which history testifies to.

The maturation of social forms in history is synonymous with a rise in self-consciousness.

> "...as a result of the combined, selective, and cumulative operation of their numerical magnitude, the human centres have never ceased to weave in and around themselves a continually more complex and closer-knit web of mental interrelations, orientations and habits just as tenacious and indestructible as our hereditary flesh and bone conformation. Under the influence of countless accumulated and compared experiences, an acquired human psychism is continually being built up, and within this we are born, we live and we grow."[115]

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[114] Phenomenon of Man, pp. 252-253.

[115] Man's Place in Nature, p. 92.

As a group passes beyond its infancy, it becomes more aware of its existence as entity. Each member of the group can identify in and with a common history, with its common problems, to a more significant degree than could his forefathers. Moreover, the members of the group share a heritage of achievement. The group, in short, as it becomes more developed has more power to impress the reality of its existence on the minds of its members. Yet another interaction between poles is established within evolution, for it is the consciousness of the group on the part of the individual which spurs the creation of the terms of group identity--language, myth, custom, culture.

> "Since the age of the reindeer the peoples had been little by little finding their definitive place, even in matters of detail. Between them exchanges increased in the commerce of objects and the transmission of ideas. Traditions become organized and a collective memory was developed."[116]

The potential of the group for identity, the power to create a special style of life, is realized in the growth in the awareness of itself. The awareness of itself grows as it acts as itself. This activity is eventually pushed to the limits of the relationships which give the group form. Once these limits are reached, the group has reached its zenith, and the descent into twilight commences. From the very beginning, the group--like an individual--has been exhausting a finite energy. The essential limits of this energy are defined by the structure of the organism. Once the physical limits of the organism are reached, or more rightly, so nearly reached as to cause the investment of energy required for further advance to be out of proportion to the gain involved, the organism stops growing.

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[116] Phenomenon of Man, p. 206.

Initially, the physical side of development is more mature and enjoys a greater concentration of force. But, the psychic development is on a rising curve whereas the physical development after increasing in momentum, finally takes a leap as the organism becomes physically complete and turns in upon itself, concentrating its energy on the development of its powers of consciousness. This is an ideal model. But evolution itself brings it into reality, for evolution is kindest to those nearest the ideal. The more ideal the organism, the more likely its survival and, far more significant, its impact on evolution. The social organism, then, which has the most to offer has the best chance to express itself in evolution. "Culture" is the form of expression proper to the social group. Evolution, in valuing culture, is enhancing the spiritual quality of life. This advance is made concrete in evolution by the forces of convergence.

Underneath the surface development of separate organisms, this process of convergence is underway. Beneath the surface tension, a rising shape of dynamic unity can be seen. Just as the human conquest of the earth marked the change from divergence to convergence, it is also the first sign of the coming unity.

If the past is viewed from the perspective of this turning point in history, parts of the process of convergence can be discerned. For one, man has, literally, formed a membrane cover the entire surface of the earth.

> "Man, who appeared as no more than a species, but who, through the operation of ethnico-social unification, has gradually been raised to the position of constituting a specifically new envelope to the earth. He is more than a branch, more even than a kingdom, he is nothing less than

> a "sphere"."117

Men are able to link themselves together. Man's spreading outward was determined to meet by the curvature of the globe. Thus, man's outward expansion was determined to meld into itself.

> "So far as we are able to follow its historical progress, the grouping and organisation of the human mass has in the past been broadly governed far more by the principle of expansion than by that of compression. Diverse civilisations were able to grow and rub shoulders on a sparsely inhabited planet without encountering any major difficulty. But now following the dramatic growth of industry, communications, and populations in the course of a single century we can discern the outline of a formidable event. The hitherto scattered fragments of humanity, being at length brought into close contact, are beginning to interpenetrate...Under the influence of forces compressing it within a closed vessed, human substance is beginning to "planetise" itself, that is to say, to be interiorised and animated globally upon itself."118

During process of moving outward, man accomplishes two things important to his eventual unification. One, he fills up space. Two, man is overcoming his environment. Obstacles that would disrupt a process of integration are being extirpated, at first unconsciously, but now with the beginnings of deliberation. Teilhard notes an,

> "...increasingly apparent growth, overriding the monstrous and chaotic human dispersal which so distresses us, of this force of auto-unification emerging from the psychic energies released by our technico-social mastery of the earth..."119

In evolution, human invention functions to both replace and complement nature as it reflects nature's influence, "...it (i.e. life, through humanity) has found itself capable of collaborating in its own further progress

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[118] _The Future of Man_, p. 294.

[119] _Ibid_., p. 284.

by invention;..."[120]

What is significant in Teilhard's optimistic analysis is the emphasis on quantified measures of society and the valuing of process rather than event. The key to his conceptualization is the biological organism. The biological model leads him to the conclusion that advance can be defined in terms of size and complexity. Specifically, organisms can be rated according to the number of elements brought into close contact with one another through the channels of established relationships.

Also, the process of assimilation is already well advanced. The human process of assimilation has already distinguished itself from the processes of advance proper to lower forms of life.

> "With man (at all events with Post-Neiolithic man) simple elimination tends to become exceptional, or at all events secondary. However brutal the conquest, the suppression is always accompanied by some degree of assimilation. Even when partially absorbed, the vanquished still reacts on the victor so as to transform him. We might as well borrow a geological word for the process-endomorphosis--and it is more appropriate of course in the cast of a peaceful cultural invasion, and yet still more with populations, equally resistant and active, which interpenetrate slowly under prolonged tension. What happens then is a mutual permeation of the psychisms combined with a remarkable and significant interfecundity. Under this two-fold influence, veritable biological combinations are established and fixed which shuffle and blend ethnic traditions at the same time as cerebral genes. Formerly, on the tree of life we had a mere tangle of stems; now over the whole domain of Homo sapiens we have synthesis."[121]

This point takes on added importance when the fact that Teilhard ties the process of assimilation directly to a rise in consciousness is considered.

> "In all realms, organic union differentiates, but does

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[120] The Vision of the Past, p. 73.

[121] Phenomenon of Man, pp. 207-208.

> not neutralize the elements it groups together. Applied to the case of races and peoples, this principle allows us to foresee a certain future growth in the uniformity of man's somatic and psychic characteristics; but in a combination with a living richness in which the qualities belonging to each of the lines of convergence is recognizably carried to its maximum. The formation of a synthesized human type, on the basis of all the slight variations of humanity that have appeared and matured in the course of history; that, if my hypothesis holds, should be the process at present developing on this earth."[122]

Basic to Teilhard's idea of awareness is the notion that the focus of the awareness is man: awareness means first and foremost what it is to be human. The process of assimilation begins with the insight that this humanity is shared. This holds true for all human organisms individual or collective, for it is the recognition of common ground. Along with this recognition of something shared, there is also the perception of points of difference. The awareness of self, or of the in-group, heightens the contrast with others.

> "...so an increasing agitation became continually apparent in populations each consistent element of which felt itself under pressure from a more lively capacity for, and hence need of, autonomous activity and enjoyment."[123]

In Teilhard the apprehension of constant conflict, combined with the knowledge of what is common, generates a process of attraction which propels convergence. If it is common concern which brings men together, it is the fact that there are two sides and that each side possesses a quality the other lacks which establishes the belief in a mutual gain to be had from the relationship.

> "Once this functional diversity of the human branches is

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[122] The Vision of the Past, p. 208.

[123] Man's Place in Nature, p. 94.

> admitted, two things immediately follow...and the second is that in this drive towards collective personalization, aid must be sought from each of the neighbouring branches; an aid all the more carefully applied the more vigorous these have the good fortune to be."[124]

Of course, this description of a process of attraction is abstract and a concrete process of assimilation may not be nearly so smooth. But, Teilhard's main point remains, whatever the character of the attraction and no matter how assimilation is carried out, the drive to assimilation is based on the perception that what is mutual makes assimilation possible and what is unique makes it beneficial, at least for one side. There are two important factors to note here. The first is that to Teilhard, all processes are essentially positive, since they arise from the fundamental perception of a need for unity. The second, a corollary of the first, is that greater heights are reached where the exchange involves as much of both sides as possible and, hence, the ideal exchange is one of mutual enrichment, an exchange where an interaction is established which endures. The ultimate relationship, the model for all such relationships, is love.

> "From what source will the branches, and the human individuals as well, ultimately draw the desire to accept one another and draw one towards joyful unity? There is only one conceivable source; a growing attraction to a centre of consciousness in which their fibres and their bundle must complete themselves by reuniting. If we study its most profound features, those of liberty, humanity seems certainly to have reached the stage of its evolution in which it cannot from any viewpoint face the problems presented to it by the growth of its inner energy without defining for itself a centre of love and adoration."[125]

Completing the spiral, love is the attribute of a man who is fully aware.

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[124] The Vision of the Past, pp. 212-213.

[125] Ibid., p. 215.

As awareness deepens in men, the motivation for selfish aggrandizement, which is destructive, though not absolutely so, gives way to a sense of love, which is perceived as being more full and satisfying. Expressed in terms relevant to a collective entity, the highest value is seen to be making out of two organisms a single new and greater organism.

As man is maturing, as the aggregation of many particular centers of consciousness grows more dense, the vision of unity and the subsidiary perception that a peaceful exchange is the most meaningful exchange are becoming more clear. According to Teilhard, violent accumulation is gradually giving way as a viable means of growth. Along with the deepening of awareness, and the extension of organization, the way to these ends, the practice of growth itself is becoming better. Awareness of humanity and the experience of living together teach man how to grow. Once again, in yet another set of terms, divergence-convergence expresses itself.

> "Now, at the present moment, we are prey to the forces of divergence. But let us not despair. In man, as we believe we have recognized, ramification is no longer taking place except in a field of convergence."[126]

The curve charting the forces of divergence again falls to meet the curve representing the forces of convergence as becoming unity reaches through phenomena to its full realization. Again, as the potential of separation is realized, the needs for convergence are more apparent. The force of attraction, the demand for new energy, peaks as the old forces reach the limits of complexity. As a culture becomes encrusted with set upon set of rules and customs, the vital mainspring--creativity--becomes stifled. The loss of strength is soon felt, and the demand for new life wracks the exhausted body. One manifestation of this pulsing heart which pumps blood to the process of growth is the development of literature: a period of classicism is usually followed by stagnation, which in turn gives way to a new direction in writing, born at the confluence of interpenetrating streams of thought, feeling, and style. History is a record of such happenings--a record which shows the same process being continually repeated in different scales, on different levels, in different terms. But, as the spiral of evolution rises, Teilhard sees these repetitions taking on a new aspect. Where once chance ruled, unchallenged, science is taking more of a role. Wastage is being eliminated; complexification is being channeled; and events are being both predicted and predicated.

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[126] Ibid., p. 210.

> "I believe that what is now being shaped in the bosom of planetised humanity is essentially a rebounding of evolution upon itself....The first stage was the elaboration of lower organisms, up to and including Man, by the use and irrational combination of elementary sources of energy received or released by the planet. The second stage is the super-evolution of Man, individually and collectively, by the use of refined forms of energy scientifically harnessed and applied to the bosom of the Noosphere..."[127]

The roots of the application of science to the problems of organization have been noted in the previous chapter. Technological advance is nearly synonymous with the phrase "ability to control the environment". This equation can be extended by adding "complex organization" as there is a proportion between the sophistication of the organization which uses the tool and the capacity for using complicated tools. Conversely, the complex organization requires the technology to continue to function. Again, a Teilhardian system of interaction forms what appears to be a logical circle, but as a matter of fact, is one level of a spiral. A mutual dependence creates an interaction which accounts for both the possibility and necessity of advance. Teilhard ties thought to this advance.

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[127] The Future of Man, p. 176.

Thought, in the cloak of science, is rising on and through the interaction of technology and organization while, at the same time, science is supporting them. Science gives to technology and organization insight, the knowledge which allows man to make better tools as he comes to a deeper understanding of himself and his environment. Science serves and attracts as it lays bare the basic unity of things. Teilhard is here again joining an interaction on the phenomenological plane with one of the spirals in his model.

The peak of the entire process is the coming together of science and state. While thought is rising through science to a capacity for government as was discussed in the last chapter, organization is developing a suitable structure to hold science. "Research, which until yesterday was a luxury, is in process of becoming a major, indeed the principal, function of humanity."[128] This process is analogous to the process that culminated in man--the physical forces produced the body and brain which was capable of allowing the maturing psychic forces to reflect back on themselves in order to take a great leap forward. The psychical forces in conjunction with physical forces are at work generating a state which will be worthy of science.

> "Indeed, following logically upon our effort to co-ordinate and organise the lines of the world, it is an outlook recalling the initial intuition of the first philanthropists that our minds constantly return, with the

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[128] Ibid., p. 210.

> elimination of individualist and racial heresies. No evolutionary future awaits man except in association with all other men. The dreamers of yesterday glimpsed that. And in a sense we see the same thing. But what we are better able to perceive, because we stand on their shoulders, are its cosmic roots, its particular physical substance, and finally the specific nature of this mankind of which they could only have a presentiment..."[129]

This process is one of interdependence on all levels. As it has been described previously, a brief review of its terms will be sufficient.

Science and society grow closer together under the pressure of certain trends which are gaining greater momentum in time.

> "When we consider the increasing compression of elements at the heart of a free energy which is also relentlessly increasing, how can we fail to see in this two-fold phenomenon the two perennial symptoms of a leap forward of the 'radial'--that is to say, of a new step in the genesis of mind?...
>
> A new domain of psychical expansion--that is what we lack. And it is staring us in the face if we would only raise our heads to look at it.
>
> Peace through conquest, work in joy. These are awaiting forces beyond the line where empires are set up against other empires, in an interior totalisation of the world upon itself, in the unanimous construction of the spirit of the earth."[130]

As the trends grow stronger, the bars set against them grow weaker. The obstructions in the way of these trends are negative, and so, by Teilhard's definition, cannot be added to. They must passively suffer their diminution under the assult of the positive forces of advance. The major trends, specifically, are: (1) organization applies more of its resources to science; (2) the higher cost of more specialized research makes this support necessary; (3) the standard of life becomes more dependent on science;

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[129] Phenomenon of Man, p. 246.

[130] Ibid., pp. 252-253.

(4) the educational system produces more scientists and technicians as the society becomes more science oriented; (5) the society becomes more willing to support science and live under its directives as it becomes more familiar with it. The relationships between science and society become more facile as they become more routine. In the end, these relationships will have become so facile that the momentous step into convergence will be simple and nearly invisible.

The invisibility of the point of convergence is appropriate. As evolution is an organic whole, the one last step is not necessarily more important than any other step taken along the long road. The important fact is convergence itself. It stands out alone, overshadowing not only the last step, but many steps before it. Already it is influencing us. In organic unity, convergence shapes man as man generates it. That is why the preview of it is so important.

The ideal man has before himself flows from the confluence of three concepts. ""Futurism, Universalism, Personalism" must replace or complete the old slogan that stirred our fathers, 'Liberty, Equality, Fraternity.'"[131] Man is already familiar with them. He is engaged in making them organic and real. At the point of convergence, and here Teilhard slips the company of both Plato and Hegel, these principles are made concrete and unified in action. They are realized in the very existence of humanity. They are, therefore, not transcendentals. As these ideals become real man passes them. They become the platform upon which man climbs to approach the transcendental. As these principles bloom in man, man becomes open to

[131] Letters to Two Friends, p. 91.

the activity of God.

> "The end of the world: the wholesale introversion upon itself of the noosphere, which has simultaneously reached the uttermost limit of its complexity and its centrality.
>
> The end of the world: the overthrow of equilibrium, detaching the mind, fulfilled at last, from its material matrix, so that it will henceforth rest with all its weight on God--Omega.
>
> The end of the world: critical point simultaneously of emergence and emersion, of maturation and escape."[132]

In the Teilhardian millennium universalism means all mankind experiences every act of man and every man experiences all the activity of mankind. Interdependence becomes absolute. Futurism--as man is unified tangential energy is no longer directed into attraction and repulsion but into the center where the fire of universal interaction creates a great updraft. This paradox is the obverse of the paradox man experiences now in the present, the power of radial energy pulling us ahead is pulling us together. At convergence, all energy is directed upwards. Personalism means all the activity is directed into the personal. Man is communicating in human terms because men are communicating themselves. Humanity--wisdom and love--is being generated as we contact one another. Man is in the process of learning how and making himself able to organize together, address the future, and above all be human. As these principles become the center of life itself, they determine those structures through which life flows. As these principles are realized in evolution, they become the vital center of the relationships which state, religion, and science circumscribe as well as the focal point of their aspirations. The State or political community, then, which is by nature most directly oriented to universalism, will have its structures, its functions, along with its ethics, governed by the center of convergence.

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[132] Phenomenon of Man, p. 287.

At the point of convergence, ethics becomes concretized. The distinctions between intent and act are nearly obviated: first, because thought and action are organically one; second, because ignorance no longer is a barrier between goal and action; and third, because man has at hand the power to reach his goals. The ethical problem, in short, is relieved because the need to develop abstract principles of action has disappeared. Ethics finally disappears as man becomes fully moral at Omega.

> "Now when sufficient elements have sufficiently agglomerated, this essentially convergent movement will attain such intensity and such quality that mankind, taken as a whole, will be obliged--as happened to the individual forces of instinct--to reflect upon itself at a single point;..."[133]

Politically, man becomes oriented to order immediately; the political relationships become clear, and hence, the special problems of political ethics disappear. This attenuation of ethics is happening as man moves to convergence.

As man converges, the new science is taking over the world of ethics; that is, as science is becoming more identified with human action it is making a separate critique of that action unnecessary.

> "In Man evolution is interiorised and made purposeful; and at the same time, in the degree in which the strivings of human inventiveness need to be controlled in their operation and sustained in their energies, it imposes upon itself a moral order and 'mysticises' itself."[134]

Political activity is becoming less a question of ought and more a question of how. The one ethical question is: should the state participate in evolution?; and, even here, the weight of practical considerations prejudice the answer almost absolutely. Teilhard, in a telling reference to Pascal's famous wager argument, makes the diminution of ethics clear.

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[133] Ibid., p. 287.

[134] The Future of Man, p. 212.

> "To determine man's choice, in his famous wager, Pascal loaded the dice with the lure of boundless gain. Here, when one of the alternatives is weighted with logic, and, in a sense, by the promise of the whole world, can we still speak of a simple game of chance? Have we the right to hesitate?
>
> The world is too big a concern for that. To bring us into existence it has from the beginning juggled miraculously with too many improbabilities for there to be any risk whatever in committing ourselves further and following it right to the end. If it undertook the task, it is because it can finish it, following the same methods and with the same infallibility with which it began.
>
> In the last analysis, the best guarantee that a thing should happen is that it appears to us as vitally necessary."[135]

In short, the deeper the commitment to the new science becomes, the more the standard of value becomes the principle of utility. It is the new science which determines this standard. While ethics is diminishing as an important consideration for politics, questions of structure are becoming increasingly important.

The most obvious attribute of the new State is its universality. The new science must be able to reach all men directly through it. Moreover, convergence demands a world at peace. Finally, the universal state is the logical culmination of the trend to higher organization. "And since the compulsion is applied on a uniform and total scale to the whole mass of humanity the ultimate social organisation which it evokes must of necessity be unitary."[136] Even during the process of convergence, one world government would seem to be necessary in order to secure the universal interaction which brings the new science to fruition. In other words, it is necessary to establish a universal governmental structure in order to realize the human potential for a universal political community.

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[135] Phenomenon of Man, p. 232.

[136] The Future of Man, p. 229.

The idea that world government, is antecedent to universal political community is very much in line with Teilhard's way of thinking--the development of the physical platform for a rise in consciousness precedes the rise in consciousness itself.

The second attribute of the state is that it is structured hierarchically. This idea follows from the idea that the State and its government is a necessary instrument in the advance of the new science and in turn develops in a way analogous to it. The synthesis demands, among other things, an elite.

> "How can we attain that higher passionate unity in which we shall find rooted and consumated in a new synthesis the democratic sense of the rights of the person the Communist vision of the potentialities contained in matter and the Fascist ideal of an organized elite?"[137]

The logic of the process of convergence demands a structure where the pure scientist is given a free hand to develop thought while the technician applies this thought to the advantage of humanity. This point was fully developed in the last chapter. Teilhard, in short, envisages a governmental structure which puts power in the hands of the scientist.

To Teilhard there is no question that this is good for all of mankind. But before all men are brought through the point of convergence into the mega-synthesis, their participation in the State and hence in the government is limited.

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[137] Building the Earth, p. 32.

> "A convergent world, whatever sacrifice of freedom it may seem to demand of us, is the only one which can preserve the dignity and aspirations of the living being. Therefore, it must be true. If we are to avoid total anarchy, the source and the sign of universal death, we can do no other than plunge resolutely forward, even though something in us perish, into the melting-pot of socialisation.
>
> Though something in us perish?
>
> But where is it written that he who loses his soul shall save it?"[138]

Since all men do not share the scientific perspective equally, they cannot share the power. The pragmatic imperative to control evolution excludes a wasteful, egoistic freedom. It also excludes ignorance. During the process of convergence, the generality of mankind must be willing to accept the directives of the new science, not because they share a commitment to the vision but because they desire to receive the benefits which they can see fall to them from the hands of science. They acquiesce in the rule of the scientist and the technician because their relatively vulgar desires are satisfied. The elite is made legitimate by virtue of their authority, not by virtue of some power vested in them by the mass. Moreover, since they are the only ones capable of judging the authority, they are responsible for their own perpetuation. The logical requirements of the concept of a visionary elite have not changed since Plato.

If an equation is made from the Teilhardian model to the problem of faith in evolution, there are obvious distinctions in the quality of various acts of human faith. Teilhard was not directing his thought to the masses. He was addressing, rather, the most aware because it is those who are aware who are the focus of consciousness and hence the future of evolution. Teilhard believed that the first requirement of advance was that those who think must have confidence in thinking. In Teilhard's judgment, the vision was necessary to the elite. What was necessary to the mass of mankind was that the elite function in light of the vision and so exercise their potential for leadership. The act of faith of the mass of mankind is an act of faith in the elite, generated by the benefits accruing to them.

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[138] The Future of Man, p. 52.

Strangely enough, Teilhard devotes little time to the subject of education, even though it would seem that this would be a linchpin in the all-important process of both passing on and developing the scientific perspective. The best resolution of the connundrum I could present is that he felt education would take care of itself, or that science would follow the pattern of perpetuation that it has already established. In any event, he must have been confident that this would be taken care of in evolution. Somehow, new scientists would rise up; it is not the concern of evolution how the particular role is filled or who fills it. Evolution does not form individuals; it forms groups. All we know is that somehow some men are made, or become, conversant with the vision. The important fact for this stage in the discussion is that this is the path, the only path, to leadership in the State. "And to unify the whole by favoring and regularizing the affinities which tend so clearly at the present day to group all human unities into a sort of single organ of conquest and research."[139]

It is only reasonable that the path to leadership lead through the scientific perspective. As the State comes closer to convergence, two prime functions, functions directly tied to the interests of the new science, tend to more fully exhaust the sum of its operations.

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[139] The Vision of the Past, p. 173.

First, the State provides the channels of communication through which all the myriad interactions that are driving evolution forward are passing. The State and its government form the frame in which the poles are set, and over which the dynamic tension crackles. Thus, it is of paramount importance that the State keep its channels of communication intact and open. The State must maintain a flexible, complex and stable order: flexible in order to keep pace with every change, complex in order to register every change everywhere, and stable in order to preserve the total effect of change.

> "Although, as I believe, concord must of necessity eventually prevail on earth, it can by our premises only take the form of some sort of tense cohesion pervaded and inspired with the same energies, now become harmonious, which were previously wasted in bloodshed: unanimity in search and conquest, sustained among us by the universal resolve to raise ourselves upwards, all straining shoulder to shoulder, towards ever greater heights of consciousness and freedom. In short, true peace, the only kind that is biologically possible, betokens neither the ending nor the reverse of warfare, but war on a naturally sublimated form."[140]

To come near to attaining this ideal requires a great deal of energy in any case; this demand is magnified as the point of convergence is neared. In the end, an almost total commitment must be forthcoming.

Second, the State-government provides the organizational tools which the new science must have to carry out its experiments. Moreover, this organization generates the resources and the demands which contribute to the advance of the new science. This function has been described elsewhere. Again, as the new science nears the end of its ascent, the demand for organizational tools becomes almost total. It might be said, then, that it is the function of the State, by extending itself arbitrarily through government, as is its nature to build the path to the point of convergence. A rising consciousness follows in the wake of its organic extension, finally breaking through the arbitrary social layers it has woven, to focus on the new reality which the whole process has created--the community in space-time.

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[140] The Future of Man, p. 153.

At the point of convergence Teilhard sees man brought into a communion of love made possible by the light of the vision. Omega lies just beyond. All that remains to be done is to spread the organic unity of all things human, that the vanguard of man has attained at the point of convergence, throughout the entire human organism. The new point must be expanded into a new membrane, a new layer of existence spreading over the earth.

The hallmark of the new community of man is love. Men are actively and supremely attracted to one another.

> "And what does this mean except, finally, that the planetisation of Mankind, if it is to come properly into effect, presupposes, in addition to the enclosing Earth and to the organization and condensation of human thought, yet another factor? I mean the rise on our inward horizon of a cosmic spiritual center, a supreme pole of consciousness, upon which all the separate consciousnesses of the world may converge and within which they may love one another: the rise of God."[141]

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[141] _Ibid_., p. 120.

The overwhelming drive of men is to consciously give oneself to the other, the personification of humanity. The dominant impulse is to integrate in the hyper-personal. The knowing and giving of oneself in the hyper-personal is the climax of consciousness and its corresponding force-attraction. It is, thus, the reification of the force which has been moving matter, in and through matter, from the beginning. It is the hope of this final orgasm which draws man onward.

Love requires a special kind of knowing. Love requires that we know how beautiful the completed being can be. In this case, man must know how beautiful humanity in full flower and resting in peace will be before he gives himself over to the task of becoming the ideal or becoming an organic whole of free parts.

> "...It remains true that a super-condition can be distinguished, essential to the maintenance in action and to the pressure of the ever increasing and ever-fallible sum total of all our "liberties". This is that, keeping pace with self-reflective evolution, the reasons for an appetite for living...grow stronger in the depths of the human soul. This entails the maintenance around us of a cosmic "atmosphere" that grows continually clearer and warmer as we advance farther: clearer, because we can foresee the approach of a way out through which all that is most precious in what we have worked for may escape forever from the threats of a total death lying ahead of us..."[142]

Love, in short, requires vision. It is the task of the new science to explain or give the vision to all men, even the most distracted. Having accomplished this, the new science must construct organic humanity in such a way as to insure that the love energy flows freely and evenly, without wastage. The new science must bring the tentative organism that existed at the point of convergence to perfection. These tasks have been set out for it from the beginning of evolution, and we can discern the shadow of them in the development of every phylum.

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[142] Man's Place in Nature, p. 120.

Finally, the Teilhardian convergence dictates a transformation of the State. Previously, the State through its government had been the chief instrument for the development of the new science. It had been the physical platform which had raised the new science up to the point where it had broken into the new existential sphere. Now the State, because it holds all men together in a network of interaction, provides the channels through which love pours. As the new life touches men living in the State they become critical poles around and through which the dynamic action of love spires. The State is all men, man, receiving and extending love. The State is a concrete, supra-person. Its characteristic organization, government, disappears as political relationships become immediate. The individual's part in the State is immediately apparent to him. He acts in this light willingly, confident all other individuals are acting in the same way.

The fact this new order is to be realized in the future makes it both an ideal and a model for the present. Men in the State, striving to make of the State the community in space time, will make the State-government which opens the way to convergence. Observing the model through the vision we will construct a government which will be structurally the same yet, because the existing political community only partially meets the standards of the political community it anticipates, this construction is at first arbitrary. It is imposed by authority. Thus, as evolution continues, the State-government, while outwardly remaining the same, inwardly shifts from being governmental to communitarian. The present task of man, then, is to build the structure. After that, he must maintain it while the shift to community is taking place. Teilhard is realistic enough to see this involves a great concentration of power and this power, in the beginning, is justified only by the hope in the ideal. The men who first build the government must give away their freedom on the promise of the future and because of their confidence in the vision of the new scientist. The commitment to evolution in the beginning will be a hard thing. This commitment will require a special good will. The model and the source for this good will is the Incarnation.

To Teilhard, Christ is not only the end of evolution but, by virtue of his direct participation in evolution, is the perfect evolutionary man.

> "...the most traditional Christianity, expressed in Baptism, the Cross and the Eucharist, can be interpreted so as to embrace all that is best in the aspirations peculiar to our times.
>
> My hope is that it may help to show that Christ, who is ever the same and ever new, has not ceased to be the "first" within mankind."[143]

He is an example to mankind of grace and wisdom; his life is an example to man of the supreme sacrifice; it is the ultimate sacrifice in the myriad sacrifices that man is going to be called upon to make in the process of becoming. Christ, by his life, shows man what we have to do. Christ, as he reveals himself through time, leads men to their particular tasks. This is the power of truth. In love, he gives to men the power to accomplish what they must do.

> "Christ, principle of universal vitality because sprung up as man among men, put himself in the position (maintained ever since) to subdue under himself, to purify, to direct and superanimate the general assent of consciousnesses into which he has inserted himself. By a perennial act of communion and

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[143] The Divine Milieu, p. 43.

> subliminatlon, he aggregates to himself the total psychism of the earth."[144]

Christ guarantees to those who keep faith with humanity that their activities will be efficacious. If men give their wills to him, they will become positive instruments in this creative act. It is the grace of God become man that allows man to become man, fully and completely. This is the mystery of Christ in evolution. His perfect love can and will make all things new through first the polarization and then totalization of human love made possible by his life on earth.

Christ works in all of evolution through the Church. From the standpoint of evolution, Christianity is the central axis around which evolution is spiraling and moving to convergence.

> "In other words can we not say that Christianity fulfils all the conditions we are entitled to expect from a religion of the future; and that hence, through it, the principal axis of evolution truly passes, as it maintains?"[145]

Christianity is the custodian of the vision, the instrument through which Christ is revealing himself, and the vehicle bringing man to Christ. Ironically, because Christianity is so central to all of evolution, so pervasive in it, Christianity as such is 'other' in regard to the movements which have been described. Christianity remains an ideal to the very end. Christianity is, in a sense, always above and ahead of evolution; the manifestation of Omega at the heart of the process.

It is the Christian vision drawing science and the State, ultimately mankind itself, into the future. Christianity becomes real only at the very end, in the presense of Christ himself. It is the pole, finally,

[145] Ibid., pp. 297-298.

with which everything in evolution interacts to perfect itself. The role of the Church, then, is to make these interactions possible by extending Christ to all mankind by embracing the world fully. All things converge on her.

The Church is the ark of this new convenent; carrying before all of nature the law which governs it. This is the culmination of Teilhard's synthesis; the combination of religion and science Teilhard believed man needed so much.

Chapter V

It may be the author, by judicious use of the device of selective inclusion, has taken Teilhard beyond the limits of his intentions. Yet, one must consider that such a far-reaching synthesis as Teilhard presents must be ready to stand on its merits. It must so stand regardless of what the author of it expresses concerning his intentions, or even what he says outside of the corporate bounds of the synthesis concerning some of the issues touched by it. The analysis I present here is directed not at Teilhard as a person or even all his ideas on the subjects which are discussed herein; the analysis is directed to the synthesis which he presents. I believe it to be my task as a critic to explore the consequences of his thinking, and expose them even though there would be good reason to believe Teilhard himself would find them unacceptable, even abhorent. I believe this work to be especially necessary in the case of Teilhard because, as I explained in chapter one, criticism of Teilhard has not extended nearly as far as the breadth of his interest, because Teilhard's work is itself so worthwhile and his insight so great he deserves our attention, and because his writings present special problems that make critical attention necessary. Before I begin my criticism I would like to explore several of these problems briefly.

Teilhard was intensely concerned with "the spirit of the world". Naturally, he focused his writing on this point. Because of the horatory nature of his concern, his writing takes on the visage of a constant reiteration of a basic argument. Loath to stray too far afield, Teilhard did not explore in great detail the extension of his vision to the periphery of its radiation. The point is that Teilhard failed to discuss many of the issues that his vision raised. There are simply a great many voids which the reader must fill in before he gets a complete view of the phenomenon of man.

This general problem is compounded by a more particular one. The scope of his vision is beyond the scope of the theory of evolution as understood by science. This factor is not debilitating in itself. Teilhard makes a number of cogent arguments for just such an extension of that theory. But, the fact that Teilhard chooses to extend the theory beyond the normal understanding of it means that he is breaking new ground. He is probing beyond the acknowledged reference points. By doing so, he is giving up the support provided by what is generally understood and accepted.

Moreover, the grand sweep of the vision become metaphysic tends to obscure critical points. A key idea such as the analogy between social organization and biological organisms is constantly reiterated but never subjected to critical examination. Moreover, the constant repetition of the visionary theme prepares one psychologically to accept uncritically Teilhard's line of thinking. Every repetition of the theme makes one more prone to making a prior or hasty judgement. Once he sees a particular application of the vision may be made with ease, the reader, too, passes over the facts of the particular case. Every hurdle thus passed reinforces the hold of the vision on the reader; the tendency is for the reader to become more inert and at the same time, more satisfied.

With these pitfalls in mind, I will proceed through my analysis by following Teilhard's line of argumentation as presented in the previous chapters. My attention will be directed first to the structure of Teilhard's argument and its implications and, second, where I believe it is necessary, to the credibility of the points themselves. 7

Teilhard's synthesis begins with the vision of God working through matter, or the mystical apprehension of matter as the divine milieu. As such, it is not open to logical treatment. Logical treatment is precluded because the vision is wholly and immediately experiential. We believe it or not depending on our own experience and our confidence in Teilhard as a reporter. Because Teilhard's work is out from a single cloth, an intelligent vote of confidence would demand an examination of the entire work. The reader must leave the vision, then with an open mind plunge into Teilhard's metaphysics. It is here the argument begins.

In my judgment the metaphysical propositions Teilhard developed in his visionary interpretation of the theory of evolution are the foundation for the flaws in his social thinking. I believe, therefore, that the problems inherent in Teilhard's appraisal of politics in light of the theory of evolution can only be seen if the metaphysical underpinnings of that appraisal are examined. My critique of Teilhard's metaphysics is directed to the inadequacy of the restructuring of the theory of evolution which Teilhard must undertake in order to raise the theory of evolution to the universal plane. I believe, and I make this point emphatically because I believe it to be of radical importance, that the great failure of Teilhard's constructive efforts is his failure to give the theory of evolution moral capacity: an ability to comprehend the personal and the valuable. This failure makes the extention of the theory of evolution into politics precipitous.

Why is the interpretation of the vision in terms of the theory of evolution so crucial? For one, Teilhard could make sense out of the vision, he could explain the vision without reference to the theory of evolution. Therefore, the conjunction of vision with theory, a link upon which the whole structure rests, is open to question. A serious examination of it must be made.

The most direct argument Teilhard makes for accepting the theory of evolution as a universal principle is, in fact, that all advanced thinking has become evolutionary. To Teilhard's mind, evolution has become a collective first principle. A simple step remains to make it a universal first principle.

Not all science, let alone the humanities, accept evolution as a governing principle in their respective spheres. Moreover, even in the life sciences, the theory has been undergoing constant modification, a fact for which Teilhard himself is greatly responsible. It may be as Teilhard says, evolution will come to be recognized, in some form or other, as a collective first principle. But it is not now. Hence, serious examination of the theory of evolution must still be undertaken before it can be further accepted as such. Therefore, Teilhard in his argument, assumes a step which has not been taken. Evolution as a universal principle, then, is that much more distant. The first argument must be rejected.

The second argument advanced for the acceptance of evolution as a metaphysical first principle is not so direct as the former argument but it is much more serious. Teilhard's entire work must be taken as a proof that evolution, in light of the vision, will work as a universal principle of knowledge. In effect Teilhard undertakes a demonstration that his visionary evolutionism will explain all facts. Evolution in Teilhard occupies the same position in the synthesis as does the dialectic in Hegel. Dialectic and evolution are both logic and first principle. The dual role they are called upon to perform in the development of the respective syntheses lends them a special ambivalence which must be guarded against.

Reality is being defined as dialectical or evolutionary in principle and one must recognize the assumption for what it is. The lesson here is simple. One must keep in mind that the burden of proof remains with the author. Teilhard must demonstrate that all of reality is evolutionary by his ability to explain all of reality, not just that segment of reality which is left after the evolutionary logic has been used to slice away facts too stubborn to fit in the evolutionary mold.

The process universalizing evolution and what that process entails must be examined closely. If one reflects on the synthesis presented in the previous chapters, the function evolution performed as organizing principle will be readily recalled. The fact Teilhard did not present an explicit rationale for this work will also be remembered. Hence, much of the examination of the process of universalizing evolution must be done without reference to Teilhard himself. It will be necessary, then, to examine the process somewhat abstractly. This examination will begin with a discussion of the structure of the general theory of evolution.

Evolution focuses on vertical relations. The theory seeks to relate groups of living creatures to preceding or succeeding groups. The purpose of this structuring is to show the historical pattern of development. When we look at the ordered picture evolution presents us it is good to be aware that there are spaces in between the separate histories of the developing species. If we were to draw a visual abstraction of the schema of evolution, it would remind one of a picket fence. What must be kept in mind is that the gaps in that picket fence represent a deliberate exclusion of phenomena rather than a report than no phenomena are there. Let us recall the nature of these gaps.

The theory of evolution is general in scope, dealing in species.

Nothing individual merits its concern. It is an attempt to order. The theory of evolution searches out the dominant theme and emphasizes it. Applying evolutionary analysis to biological history is like shooting a fluid into a membrane in order to bring out specific features in it. Evolution is a way of seeing things. As such it is a light which affects the object of study. Evolution, as it brings out the general order of biological succession, relegates relationships that are not historical expressions of the development of biological groups to relative unimportance. The theory of evolution as generally understood is silent on the future. Evolution does not deal with horizontal relationships as such, but considers them only in-so-far- as they constitute the environment of one species or the other.

Only the parts of the environment which have a definite effect on the development of the species in question are considered. In constructing a general theory, Teilhard was faced with the problem of filling in these gaps. It was Teilhard's unique genius to discover that the Christian perspective could be made to perform this function quite well. Teilhard saw that, far from being incompatible, Christianity and science were really mutually reinforcing. What Teilhard saw with profound insight, whether he knew it or not, was that the relation between religion, action, and humanism in Western thought which gave rise to science in the first place could be revived and that this revival could provide the profundity of perspective which science lacked. Viewed in this light, Teilhard's work can be seen as an attempt to revitalize the relationships which have been the motor force in the advance of Western culture. What could be more natural or easier than this? But, in applauding Teilhard's insight, the fact that evolutionary biology has been substituted for science in general must not be overlooked. As the development of Teilhard's insight is examined, the examination must turn to the crucial areas which determine the success of the arrangement in answering the problems of the century--the future, integral relations, and, finally, the individual.

In Teilhard's eyes, the question of the future had to be pre-eminent. If there could be a reasoned hope in the future; that is if man could be convinced that he could meet the challenge of the future through activity within the range of human capacity, then the problem of faith would be resolved. This point should be pondered, I think, because it is revealing of the nature of Teilhard's entire perspective. More immediately, it directs Teilhard's emphasis to the parousia in his perspective on Christianity. By combining the concepts of evolution, mystical body, and parousia Teilhard develops the idea of Christogenesis--the natural becoming of Christ in evolution--rather than a supernatural second coming--which in one stroke magnifies the Christian orientation to the future,—more than incidentally de-emphasizing the Christian orientation to the individual, and closes the open end of evolution. Moreover, Teilhard, by giving evolution a goal and direction, establishes an entry into the analysis of horizontal relationships.

Teilhard approaches the problem of horizontal or integral analysis by postulating a convergent process. He creates a process where all lives are moving in harmony with one another; where individual lines supplement one another in a rationally defined way. Every horizontal plane cut through the cone of evolution is a section of the whole and can be examined as such. The interactions among different things existing side by side takes on a new importance. Thus Teilhard meets the first two difficulties of the general theory of evolution mentioned above. The third problem is that of the individual.

Teilhard deals with the problem of the individual in various ways, three of which are important. First, on the negative side, he downgrades the importance of the individual in relation to the collective. His line of argument in this respect is an interesting one. He distinguishes between individuality and personality. He then posits that it is the development of personality which is of highest moral import to man. Finally he argues that the personality is better developed in the collective situation.

> "The goal of ourselves, the acme of our originality, is not our individuality but our person; and according to the evolutionary structure of the world, we can only find our person by uniting together. There is no mind without synthesis."[146]

Having made an argument against an exaggerated individualism, Teilhard advances two arguments for the surrender of individuality to the collective in the process of evolution. The first argument claims evolution defines reality. If the individual becomes alienated from evolution, he becomes alienated from reality. The individual is brought face to face with a crisis of meaning, a crisis which can only be resolved by harmonizing himself with evolution. As evolution enters into a relationship with the consciousness of mankind to higher and higher degrees, the pressure of this factor on the individual will grow greater. This first argument has a corollary. The individual can find material or spiritual hope in evolution. Individuals ought to identify with evolution because it is in their own best interests. The second argument holds out to man the prospect of supporting the grand sweep of history. Since it is the interaction of men with Christ-Omega which moves evolution, individuals can claim for themselves the privilege of participating in this great work. As a corollary argument, Teilhard relies on the vision to supply a view of the individual man in evolution and, more significantly, to deal with the moral problems which individual men may face. The general overview here is the same. Men are seen as vital, elementary parts in the structure of the process.

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[146] Ibid., p. 263.

Thus, in summary, Teilhard is able to remove the serious limitations which usually restrict the application of the theory of evolution by molding into it the perspective of a visionary Christianity. By imposing this perspective he can conceive of evolution as a closed process. Teilhard totalizes the process through his Christian vision.

> "When, in the universe in movement to which we have just awakened, we look at the temporal and spatial series diverging and amplifying themselves around and behind us like the laminae of a cone, we are perhaps engaging in pure science. But, when we turn towards the summit, towards the totality and the Future, we cannot help engaging in religion."[147]

As Teilhard points out, this reworking of the structure of evolution takes the shape of a cone. Seeing evolution as a cone is made possible by Christian teleology. Hearkening back to the exposition of the Teilhardian perspective, it is the model of the cone which is the key to Teilhard's structure. It is the model which is the universalizing agent.

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[147] Ibid., p. 284.

The success of the restructuring of the theory of evolution varies. From the standpoint of internal consistency, I believe his synthesis of religion and science is brought off well. I realize that there are many scientists who would not agree with this, like G.G. Simpson, but it seems to me that their position is merely a particular statement of the general prejudgement that science and religion do not and cannot mix. They seem to argue that religion, because it is not amenable to the empirical test, would carry science off into a vague mysticism. Science would lose its integrity. I believe this argument fails because it misses entirely the subtlety of Teilhard's combination of science and religion.

Teilhard does not mix science and religion. He integrates them. He brings them together, true enough, but he is careful to leave each its own sphere. He preserves the essential integrity of both. Specifically, he brings Christianity and science together at what he believes to be a common nexus--humanism. Although the activities of many scientists and Christians may give this the lie, it is theoretically sound. By focusing on a point in common, Teilhard shows how the insights of both can be made compatible with one another. He shows, basically, the theory of evolution can be made to fit into the perspective of Christianity without modifying evolution, but using it to supplement and clarify Christian doctrine. By combining the two on the level of theory, he sets up a unique and coherent set of propositions that, because they are ever orientated to future, are always hypothetical. The empirical scientist is left free methodologically. Nor has the factual corpus which he has developed been added to. No new facts for science; the facts just mean something entirely different. Science is invited to try the new hypotheses; the reason--it must look to man and the future.

This is the significant point. Teilhard manages to turn science as represented by the law of evolution to the future without upsetting it. Moreover, Teilhard has shown science can contribute positively to religion, and, by extension, to the idea of humanism. The terms of this combination can be seen to be simple and unimpeachable. Given its highly abstract nature, Christianity can, as history has shown, baptize almost anything. Science on the other hand, while being rigorously exclusive on the level of method and data, is by nature, open to any plausible suggestion on the level of hypothesis. Teilhard, playing on this chink in the scientific armor, effected a comfortable union. But the object is not comfort; it is a workable theory. Teilhard's success here was remarkable, as previous chapters will testify. Yet, weakness begins to develop as the more abstract range of theory construction is left behind and concrete relationships are taken up.

The structure of parallel evolutionary movements, while easily justified hypothetically, has relatively less impact on the specific problems it is addressed to: the horizontal relationships and interacting causes of movement in evolution. Although this form of structuring allows Teilhard to account for evolutionary movement in a unified way, this account is still in the form of a construction, giving it a feeling more of machinery functioning rather than a feeling of fluid movement. We are told what form the vital facts take. We see their growth charted, but we still do not see this vitality first hand. To know they interact is not entirely satisfying. There is a further question: how do they interact? A gesture toward what science has said about the life of the biological organism is not enough; the reference must be made explicit. No structure, not even Teilhard's, can tell us about how contemporary relationships are coming about. Structures, by definition, lack the capacity to comprehend the dynamism of life. The capacity to do so is necessary here. As Teilhard would say, we still sadly lack a science of human energetics. This deficiency makes his thinking on the individual doubly important to the synthesis as a whole.

It would not be fair to say Teilhard ignores the individual, although this is a feeling one could well get from reading the Phenomenon of Man. On one hand, he develops a highly personal moral perspective directly from the vision; on the other hand, he insists that evolutionary movement is necessarily collective in nature. The end result is the individual is incorporated into the Teilhardian perspective without being incorporated, as individual, into evolution. Despite the fact that the process may be one of personalization, the process itself is still impersonal.

Taken as a whole, the theory of evolution still has severe limitation as an organizing principle. Since Socrates, the great moral problem facing thought has been the explanation of man to himself. This problem has been felt with great intensity in our own century, to some degree because the question was lost sight of in the last. In attempting to restore Socrates's question, Teilhard's theory seems more nonplussed than aloof. The result of the penumbra in Teilhard's thinking existing in the area of thought on the individual and the cross hatching of his relationships on the surface of the collective mass of mankind is a theory plagued by voids and inconsistencies.

The significance of this discussion of structure is only dimly apparent in the abstract. I believe reference to its concrete representation is necessary to give it meaning. But still, it must be made plain that these architectonic difficulties are important. In truth, many of Teilhard's propositions fall because they do not enjoy the proper support. Or, a great deal of hasty patchwork is necessary to shore up falling arguments. In any case, by examining these structural deficiencies we are led to discover where the greatest pressure is building on the body of Teilhard's synthesis. We come to know weakness in its most fundamental sense. Having done this, the concrete arguments can be approached more fruitfully.

The system Teilhard presents is one of becoming. The system itself is action. As a system of thought, it spreads out from a central vision in an organized pattern. The system is incorporating into the perspective new areas of thinking. This movement requires a basic construction, or, a way to grow. The basic construction here is argument by analogy. The importance of the argument in generating Teilhard's synthesis is increased by the structural deficiencies noted above. This fact gives that analysis of structure its significance. Every structural weakness places that much more weight on the validity and clarity of the argument; the argument has to be that much stronger if the synthesis is to be carried off. In examining the argument by analogy which Teilhard employs three questions must be answered: What is the basis for the argument? Is this basis a suitable foundation for the argument? And, considering the answers to the first two questions, is Teilhard's analogical argument adequate for the demonstration of his synthesis? I will answer these questions in order.

Returning to Chapter II, the answer to the first question is readily apparent. The justification for the elaborate construction of analogical developments which is Teilhard's synthesis is the view that the whole of evolution and all of its parts are organic. The concept that makes the extension of the organic idea of organization to a universal scope thinkable is pan-psychism. Pan-psychism is the idea that all things have a "within", the idea that all things are to some degree conscious. Pan-psychism is, thus, crucial to Teilhard's theory. Teilhard argues forcefully almost desperately for its acceptance. Teilhard's argument has a special character which gives it a great deal of force. He reduces the discussion to an either/or proposition. Indeed his great mosaic, which taken as a whole is so subtle, is put together from such blocks of solid, primary colors. Deny pan-psychism and deny that matter has spiritual content. Deny pan-psychism and deny the vision. Deny pan-psychism and accept an essential dualism. It is difficult to keep one's balance in the face of Teilhard's constant reiteration of this argument. But keep it one must. Intellectually, this line of argumentation is misleading, no matter how helpful it can be when one is thinking in terms of faith and action.

Speaking from a scientific point of view, pan-psychism is highly speculative. Most scientists would not accept the theory. Yet, ultimately, empirical science must reserve judgement. The question is one like the question of freedom in man--the issue is not open to conclusive empirical evidence. On the other hand, empirical evidence can advise answers to the problems presented. In the case of pan-psychism, or vitalism in general, the discoveries surrounding DNA/RNA narrow substantially the ground on which these theories are based. It is fair to say a record of the modifications which have been forced upon the vitalist position would run closely parallel to the development of biology itself. As a matter of fact, the theory is open to such serious doubt on this score that much positive evidence would have to be produced to make pan-psychism acceptable as a scientific hypothesis. The argument raised here attempts no answer on the validity of the theory; the "truth" of the theory of pan-psychism is not the issue. Rather, the issue at hand is its admissibility as a premise in Teilhard's argument. On the grounds the theory is presently in doubt either because it is false or because it has not reached an adequate stage of development, pan-psychism cannot be accepted on its merits as a suitable premise for use in the development of an argument. In the final analysis, pan-psychism must fall back on its capacity to explain reality, just as the theory of evolution itself was forced to do. Thus, there has been no advance in terms of justifying Teilhard's synthesis either philosophically or scientifically.

This is an important conclusion. Another step has been taken in the analysis of Teilhard's synthesis and still no ground upon which to rest an argument has been uncovered. Again, judgement must be withheld on the synthesis for want of evidence. Yet another proposition must rest its weight on the propositions which follow it; pan-psychism must rely on the results of the arguments by analogy to provide support for it, not vice-versa. This 180° turn places great pressure on the analogical mode of arguing. Far from being held up by the force of the principles at the top, the structure of Teilhard's perspective has so far proven top heavy.

As a tool for argument, analogy is not held in high esteem. It is a dangerous tool. It is easy to get lost in a tangle of relationships between the analogues and end in a circular argument. Moreover, the d differences between the two analogues limit the potential of the argument. An analogy uses particular points of similarity to support judgements concerning the essential nature of one of the analogues. The problem is to know where valid inference ceases. This, in practice, is a hard line to find. The old aphorism, all analogies break, is well taken.

Finally, an analogy depends on an established relationship between two things. It is not a complete form of argumentation in that it does not itself prove the fact of the relationships which it discusses. Since analogy depends on the quality of a prior relationship of the analogues, the question facing a reader of Teilhard at this point is: How consistent is analogy with the internal character of Teilhard's metaphysics? Does Teilhard observe the limits his metaphysical analysis places on the use of analogy?

Evolution in general places a great emphasis on the differences between stages of the process. Teilhard pulls evolution together into a great organic whole. This trend is facilitated by and reflects his use of analogy. Distinction gives way to a sweeping unity. Difference is put aside. However, Teilhard's division of evolution into four great spheres--pre-life, life, thought, and society--stands over and against this trend. These divisions are emphasized. The distinctive character of existence proper to these divisions is clearly differentiated. This is no wonder--these distinctions are essential to his conceptualization of becoming. These distinctions define the nature of the growth taking place. But, in drawing his analogies, he forsakes these distinctions so essential to his analysis.

Teilhard transfers specific qualities observed in one sphere to the next without critical examination. This is done most especially in the case of society. Yet, the distinction between biological life and social life is of paramount importance for the idea of the phenomenon of man. The critical idea that a more complex social organization represents a rise in consciousness or an advance in terms of evolution is assumed without reference to any sort of concrete supporting evidence. This is remarkable considering the doubt our century manifests concerning the social organizations we have developed. Subsidiary analogies such as the identification of culture with consciousness or the social corporation with the body of an organism receive the same treatment. The contrast here between the attention paid to the correlating of various aspects of these spheres is startling. The result of this carelessness is to usher in by the back door many of the inherent weaknesses of the theory of evolution which were denied entry at the front door by the vision.

His uncritical use of analogy extends the failure in scope of the principle of evolution to the perspective which he develops. Looking back to the beginning of this chapter, it was pointed out that the theory of evolution as generally understood was limited as a universal organizing principle. The most critical areas in this respect were enumerated: orientation to the future, a dynamic understanding of the interrelationship of forces causing evolutionary motion, and most especially, a total lack of comprehension of the individual. Consequently it was pointed out, Teilhard had established machinery designed to deal with these problems. But as he faces particular problems in the areas mentioned above, he tends to extend the principle of evolution as it stands to meet them; thus in effect, short circuiting the machinery he himself had built.

The essence of his message in respect to evolution is that evolution has a moral end. The synthesis is structured to focus on this point. Yet, as he discusses the movement of evolution and the stage of development we have reached today, it is analogy to a biological model which most influences his line of thinking. As a consequence, distinction between such things as moral and physical forces, organization and community do not come through. Analogy, by its very nature, does not distinguish qualitatively. Moreover, the analogy cannot recognize the addition of new characteristics to old characteristics which is one of Teilhard's basic themes. For example, the difference between man and animal is that man is all the animals are and something more. Therefore, in referring man back to biological life in an analogy, we find ourselves in the position of pointing to the same characteristics which man himself shares with his analogues. Or to put it another way, man is being reduced to his animal nature. Specifically, Teilhard's uncritical use of the analogy in the case of society is as gross as if he had made the statement that a humanoid body in itself causes the power of reflection.

Since the distinctions are not made, the perspective loses its power to deal with the problems proper to what is distinct. Although it is man's place in evolution which is being discussed, such human problems as moral evil, freedom of the will, and variability are not adequately discussed. These are key problems. But, analogy cannot meet them. Analogy can only place them in a structure. They can be seen as having an effect on evolution, yet they cannot be examined in themselves. To relegate morality to a system of forces interacting is simply to annihilate the concept.

Once the moral questions are removed from the scene, proportionality is lost. It seems to be a universal characteristic of those theories which lose a moral sense that they become fatalistic or utopian. Forces do not choose their directions; they are pointed straight ahead, one way or the other. Moreover, a process of totalization can only end in total success or total failure. There is no middle ground because there is, ultimately, nothing individual. The work is rigidly optimistic. Total failure cannot be countenanced; partial failure is beyond the ken of the theory.

The structural weakness in argument by analogy is compounded by the fact that the terms of biological evolution, the analogue upon which the argument rests, are unclear. While the broad outlines of evolution and the basic forces involved are clear to the mind of science, many details are obscure. But, details are of the utmost importance to argument by analogy.

Biology is most clear on the structure of life or on the patterns growing follows. It is least clear on why things live and grow. Biology knows little about how and why many physiological forces operate; in many cases the best they can do is locate where the physiological event takes place and identify approximate causes. Facts which, it can be said, Teilhard was most aware of. These facts form the foundation for the vitalistic position which Teilhard expounds. Again, Teilhard fails to give recognition to the tremendous impact his perspective would have on the particular events and lives that make up evolution. His use of analogy is bound to fail in the context which vision establishes, not because of the properties of analogy itself, but because these properties demand analogy be carefully tailored to such a circumstance. This care was not taken. So as Teilhard's vision casts a new light on the specific terms of biology and evolution, analogies begin to break down. They are not tuned finely enough to pick up the new light. These problems which are internal to Teilhard's writings are compounded by external movements in the world of science taken as a whole. Ironically, these movements are again a part of the perspective which Teilhard advocated.

As evolution is exposited and organic life is exposed, the principle of relativity is impinging on the body of knowledge which is being developed. On the edge of the biological sciences, in the science of biophysics, ideas concerning organic life are being stretched and modified. As the interest shifts from "structure" to "force", relativity becomes more and more significant. The idea that the organism does not have a center but is a conglomerate of centers only more or less subsumed to the whole is not only destructive to the use of the organism as model and central peg for Teilhard's analogies; the idea presents a view of reality which must be taken into account.

In the Phenomenon of Man and elsewhere, Teilhard makes use of the insights of modern physics including the theory of relativity. However, his usage is again haphazard and uncritical. He does not give the theory even a cursory examination. He makes no attempt to study and compare this theory with his own. Rather, if the opportunity presents itself, he picks an argument from its body. His theory has no room for relativity other than in a minor capacity. This stance, in my judgement, is his greatest metaphysical failing. By ignoring the theory of relativity and all it implies, he is ignoring reality. This is the logical culmination of the defects in his synthesis under discussion in this chapter. The scope of the omission here and its effect, is comparable to an idealist philosopher ignoring the realist perspective, or a philosopher so entranced with diversity that he discusses the many with only passing reference to the one. Once the choice to place the theory in its position of pre-eminence is made there is something missing from Teilhard's thought, and this omission is telescoped downward through many more omissions. Thus Teilhard never gets around the basic problem he faced in the beginning--the limitations that surround the theory of evolution.

The difficulty the theory of evolution in general has in dealing with individuals, beings and events has been remarked throughout this chapter. The fact Teilhard shares in this common problem has been emphasized. Here again the point must be stressed. The theory of relativity deals directly with the unique character of all phenomena. The idea of a multiplicity of centers is a new dimension in the concept of individuality. It is an idea that could be readily transferred to man. Society appears to be nothing so much as a multiplicity of centers interacting in a framework, the centers fixed by the activity itself. Unlike the case with the theory of evolution, each individual can be looked at and accounted for without reference to a category. Man can be approached as himself. Life can be examined in itself; there is no need to fit it into a rigid pattern of movement. The idea of relativity, by its nature, loosens all structures. If or as the theory of evolution and the theory of relativity are adapted to one another, new dimensions in thinking would fall open. The rigidity of evolution would give way to a loosened structure which would allow for freedom.

But imagination can easily get ahead of us on this score. The great synthesis that lies ahead of thought in our age may well be a combination of these two theories--relativity and evolution. I believe that it will be. But the fact here and now is: it is a synthesis which still must be worked out. In pondering the body of Teilhard's work in respect to this statement, I believe it can be seen to be in anticipation of this event. It may be, in the end, Teilhard's greatest contribution. For the time being however such thoughts must be left to our musings. The concrete point developed here is Teilhard does not account for the relative side of life and by so doing negates his potential for dealing with forces, individuals, special events and freedom. Teilhard's failure in these areas is of special interest to the student of politics or society.

Teilhard's man is dynamic, action orientated, in a state of advance. He is in a movement which is becoming ever more concentrated. These are the terms which are set out. The questions must be addressed to these terms.

Advance is the key idea. The question is: what constitutes advance? Can Teilhard justify his view that the forces which he identifies are both being and working for advance? Finally, are these forces which he identifies sufficient for advance?

Nothing is more clear in Teilhard's writing than what constitutes advance. Advance is organization and thought.

> "In other words Evolution, in rebounding reflectively upon itself, acquires morality for the purpose of its further advance. In yet other terms, and whatever anyone may say, above a certain level, technical progress necessarily and functionally adds moral progress to itself."[148]

> "What matters is that in the interacting development of these two basic trends upon which Mankind is continuing to build itself, technical organisation and the growth of reflective consciousness,..."[149]

It is true Teilhard mentions other things in connection with advance, for example love and spirit. He recognized their importance in generating an interest in the idea of advance. Love and spirit generate commitment. But it is organization and intellectual development which define advance. So much so, in fact, organization and intellectual growth become the outward signs of vision and love; they are also the proper milieu for their development.

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[148] The Future of Man, p. 204.

[149] Ibid., p. 231.

Given the central role they play in the life of man, organization and intellectual growth become one with morality. They are organically connected to a good end. They are necessary means to that end in a system where ends and means are not really separable. Just as love and the vision work on the individual, organization and intellectual growth are forces working on mankind. These are the forces which impel man to a collective realization of the good.

> "...between the behavior of men in the first century AD and our own, the difference is as great, or greater, than that between the behaviour of a fifteen year old boy and a man of forty....There is a kind of human action that gradually matures through a multitude of human acts. The human monad has long been constituted. What is now proceeding is the animation (assimilation) of the Universe by that monad; that is to say, the realization of a consummated human Thought."[150]

Yet, unlike love, organizational or intellectual activity are not in themselves moral activities. Teilhard recognizes there is no direct connection between love and social organization or the vision and intellectual life in the present. For his argument is that these things must come together because they are organically one at convergence. Hence, love, vision, organization, and intellection are one or not one as they are seen at different levels of Teilhard's analysis. Organization and intellection may not be now fully moral, but they are becoming moral.

Unfortunately, this is all abstract. Forces, the building of forces, the importance of forces--these are things we find in being, but they are not beings themselves. The entire discussion of them excludes reference to the individual in himself. The individual is recognized only in his capacity as a participant in mankind.

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[150] *Ibid.*, p. 18.

> "My purpose is not to show that a necessary or infallible line of progress exists, but simply to establish that, for mankind as a whole, a way of progress is offered and awaits us, analogues to that which the individual cannot reject without falling into sin and damnation."[151]

Everything is seen from the point of view of man; what men see on and from their own narrow stages is not considered. How we feel as we study, work, live together; the joys and the sorrows we feel alone, or the passion we feel for another gives way to our sense of man. Consequently, Teilhard cannot deal with the moral problems that arise in our lives. There is nothing the theory can say to advise us as we face the everyday tests of our moral character; when a baby screams or a wife is depressed, one does not search his contemplations on the rise of humanity for the answer. Yet, it is on the everyday level, and only on this level, that moral issues are real. There is no such thing as a moral act beyond the person. Beyond the personal confrontations that are part of our lives, there are only ethical abstractions. At this point, the logical weight of the perspective which Teilhard has built, forces him to reduce these myriad problems that are the borders of our lives to terms which the perspective can comprehend. For all that he says about love, vision, or Christianity, Teilhard is forced to reduce the moral problems to the problems of thinking and organizing, especially in how they relate to one another.

Teilhard's drive to unify all things, when it is not advised by a close examination of existing beings becomes sheer reductionism. The understanding is that love, vision, and Christianity are included without prejudice in his pantheon. This is an illusion. As these concepts are filtered through the idea of evolution, they are betrayed as abstractions. In the end, they have a shadowy existence behind the concrete reality of organization and the growth of thought. Whether I love and am a Christian makes a difference only if I am a believer in the future of man in evolution and contribute to the development of thought and social organization. After all is said and done, a Christian existentialist is dysfunctional. The evolutionary standard judges not the soul but what Teilhard takes to be its concrete manifestation; thinking and organizing.

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[151] _Ibid._, p. 19.

But Teilhard is not so easily caught up. A simple argument in one of Teilhard's dimensions becomes complicated as the totality of the dimensions he conceives is applied to the question. In the case of morality, the perspective is complicated by the idea of becoming in time and the doctrine of divergence--convergence.

As was stated in the foregoing discussion, evolution is the standard. When the ideas of becoming, divergence-convergence, and deviation are applied to history and contemporary events, the importance of history and contemporary events dissolves. They are lost in the sweep of evolutionary time, their particulars only able to be seen as a part of a pre-determined pattern. The fact is that evolutionary forces select history. Any reference to history outside of this context is meaningless. Hence, Teilhard avoids argument based on history.

Moreover, Teilhard posits an advance through a point where his idea of morality will become apparent. At present, the fact of the moral value of social complexification and scientific-technical thinking is only dimly seen. No matter, these forces will continue their inexorable advance regardless of the motivation of the mass of mankind; which means ipso facto that what is dimly seen is sure to become more clear. Teilhard is saying man will do good in spite of himself and someday he will awake to discover this fact. Discussion of the moral quality of organization and thought is frustrated again. As of now, organization and thought are somewhere between potentially and actually moral. When man reaches the critical point where convergence begins, then the moral reality discovered at that point is expanded downward through the organic whole to its point of inception. Once organization and thought are seen as moral, they are moral. Thus, through the process of the foregoing steps, Teilhard's moral reduction is brought to rest in the vision. The argument turns on the vision of the scientist.

The scientist makes social organization and his own thought moral by seeing them as essential to the advance of mankind. The advance of mankind is the good. As the vision is spread to mankind the morality of organization and thought is rooted in man. What the scientist sees is the moralizing agent. Hence, the activity of the scientist has high moral content. First he deals directly with personality. His work focuses more and more on the human person. Second, it is the new scientist who establishes standards for ascertaining the quality of human endeavor. The actions of human beings which affect the external world are his special field of study. In short, the new science personified by the new scientist fills the role once reserved to ethical philosophy. The new science critiques man in action. But the new science extends beyond the traditional role of ethics. The new science directs the activities of the human person. The new science as a science of human energetics patterns human relationships. Thus, the new science and the new scientist reign supreme in that area which is most human, the realm of the person. There is a necessary relationship between the personal and the moral. The person is the ark of moral activity. Moral activity by definition is a personal act. The short and the long of it is that the new scientist has become a prime determinant in the moral lives of mankind. Teilhard has made the new scientist responsible for the moral order.

The responsibility that the new scientist bears for moral life stems from the organic relationship which he enjoys with humanity. The new scientist is directing man to the good. In a very real sense, he is the mind of man. The new scientist thinks and humanity wills and acts. The activity of the new scientist is identified with the ideal, and hence the good. Man makes this good concrete in following the directives of the new scientist. The new scientist, because he sees the good, objectifies it. Doing good, then, is no longer a moral problem for man. The only problem is to accept or reject the ideas of the new scientist.

The special quality of the ideas of the new scientist rests on the efficacy of the scientific method in discovering truth as that truth is identified with the good in the vision. The moral sovereignty of the new science is ultimately rooted in the vision in-so-far as it is the vision which humanizes science and directs it to the future.

So far, as Teilhard's thinking on morality has been followed out, the locus of his thought has been found to be the vision. No concrete reason for confidence has been given outside his area, nor has an independent point of moral competency been discovered. The vision identifies morality, but the nature of morality has not been defined. It is time to turn to the meaning of this location of morality in the vision. There are two important things to note, I think in this relationship. First, the relationship is between new science and the vision. The new science is a collective enterprise; a collective enterprise which, moreover, incorporates all knowledge into itself. The new scientist participates more or less in the vision and more or less in the development of the new science. The moral implications of this collective seeing are the second fact of note. The fact that the development of the vision is interpersonal means it possesses some extrapersonal aspects. This fact seals the special character of Teilhard's visionary morality: what is seen imparts morality. Morality resides in the vision.

The extra-personalizing effect of a collective vision in science is heightened by the fact the vision in science develops in time. The fact it enjoys an existence all its own must be stressed. It grows and continues, it becomes more and more real as its human participants live and die. Vision in science - the relationship of the two must always be kept in mind - resembles far more the spirit of history in the world than the transcendent vision of the one. The new scientist resembles far more the vanguard of the proletariat than the philosopher king. To Plato, the vision is a relationship; the term describes the interaction between the philosopher and the one. To Hegel, Teilhard and Marx the vision is identified with a concretizing vehicle like science. It is a real entity in time which incorporates man and the transcendent and thereby sets the terms of the growth of man into transcendence. Instead of the Platonic interaction in time, there is a unified action moving through time, or space-time. Despite all the humanism which Teilhard, Marx or Hegel exude, and it is great, a large step toward dehumanization has taken place.

Morality no longer rises in the individual person and flows into activity. It is in the existent activity to begin with and does not flow anywhere. The potential good of personal activity is not realized until it rests in the visionary entity.

There is another effect of this phenomenon which is interesting here. The individual person is dichotomized. In the eyes of Teilhard, Hegel and Marx the individual person is existentially identified with the concrete vision while at the same time he is essentially separated from it. In order to get with the concrete vision then, the individual must make its essence his own. He must give his person to it. Otherwise his life will be more than meaningless. It will be irrational and schizophrenic. There is no escape the other way because the individual cannot withdraw his being from the concrete vision. This is, again, in sharp contrast to Plato, where the interaction preserves, because it assumes, the integrity of the person. The Platonic vision cannot take place until a man knows himself and, as important, it takes place in him immediately. No matter how intellectual the Platonic vision is, the process takes place in the personal envelope of a man, and it rests on his moral character. The vision, the intellectual perception, leads a man to a higher morality, because it is an interaction where the demand for a prior moral commitment is constant.

The locating of the individual in a concrete vision leads to a final irony. The concept of a concrete vision removes the necessity of the continued commitment for the preservation of the vision. The concrete vision exists no matter what men do or feel about it. Therefore, the primary act on the part of man is not an act of the will bringing the vision into existence; the primary act is to perceive its existence, or feel it, or in Teilhard, believe in it, and then orient the will to it. Thus, the primary act is an act of perception. The flow is from the mind to the will.

These factors--the removal of the moral into the extra-personal, the concretizing of the moral in a vision in act, and finally the characterizing of significant moral flow as being from vision to mind to will to act to vision--intertwine to form Teilhard's basic moral posture. Knowledge equals virtue. The presumption is that the very fact of knowledge and a commitment to the mode of thinking will cause men to act for the good or, to catch the full flavor of the thought here, human acts will be good. Subjectively, the highest level of human fulfillment is to see the end of evolution and to actively engage in bringing about its realization. Objectively, once one has seen the vision, one can hardly act outside of its light. The beholder knows. The knowing beholder will follow its leads. No matter what the character or intention of the actor, the process of evolution will incorporate the activity. Put another way, evolution can fail only if man refuses to act or refuses to continue to develop. And so, on the existential level, the corporate body of knowledge in act equals the good. Knowledge equals virtue; concrete knowledge and good are complements which, when juxtaposed with subjective and objective form an ethical framework.

The logic of this structure brings Teilhard again and again throughout his writings to seeing the fate of the world as hanging in a balance between the men of vision and men who lack vision.

"The old Marxist conflict between producers and exploiters

> becomes out-dated--at the best a misplaced approximation. What finally divides the men of today into two camps is not class but an attitude of mind--the spirit of movement. On the one hand there are those who simply wish to make the world a comfortable dwelling place; on the other hand, those who can only conceive of it as a machine for progress--or better, an organism that is progressing. On the one hand the 'bourgeois spirit' in its essence, and on the other the true 'toilers of the Earth,' those of whom we may safely predict that, without violence or hatred, simply by biological predominance, they will tomorrow constitute the human race. On the one hand the cast-offs; on the other, the agents and elements of planetisation."[152]

The necessity is those possessed of the spirit of the earth must take charge. Their credentials for taking charge are their knowledge and their commitment to a mode of thinking. Those so enlightened and so committed will act for the good. Central as the idea is to Teilhard's thinking, the connection between thought and good is not approached directly or explored in any great detail. The matter is assumed throughout his systematic treatment of man. The thought that knowledge may not be productive of virtue is admitted to the realm of the possible, but just barely, considering the bias the system has already generated, and is, in any event, curtly dismissed as being irrational.

Empirical evidence, however, does not support Teilhard's thinking on the subject. History is full of examples of intelligent, even visionary, men who have been perverse. Robespierre, Stalin, Lenin, Napoleon, Hitler, Peter the Great, Ivan the Terrible--the fact is that an argument can be made, as strong as its converse, that infamy is the most common way into the history books. Games could be played on this conundrum forever. There is no way to verify the concept. Human knowledge and human virtue seem to be so relative the discussion cannot be suitably defined. There is an even graver disability balanced against acceptance of the concept of the connection between knowledge and virtue; at least, it is a disability which bears closely on Teilhard's argument. Referring again to history, one can readily perceive that great movements in it, however visionary, have suffered corruption and degeneration as well as having enjoyed reformation, and exaltation. The chronicles of Christianity, of philosophy, of science show a constant battle against corrupting influences. Ironically, Teilhard was much attuned to this truism. The thrust of his work is directed against those who hold sway in the worlds of science and religion and who constitute prime obstacle to advance. This is not the all of it. There is ample enough evidence the more successful a movement, the greater its power to attract the vicious and the more it gathers on to itself the doltish. Again, witness the history of Christianity; consider the results of the conversion of Constantine or the success of the Papacy in the lay investiture controversy. Both communism and democracy in our times may be examined in the same light. Knowledge and vision, especially as they are translated into broad interpersonal movements, seem to intensity rather than ameliorate the basic conflict.

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[152] Ibid., p. 139.

Despite the disquieting evidence history presents, the optimistic theme that when men see they will be good is constantly recurring in the history of thought. This should not be surprising. I submit that for one, it is an understandable position for any enthusiast to fall into; a position especially easy to take in the early stages of the life of great movements, when time has not tarnished their promise. Also, such a view adds weight to whatever movement or model it is connected with. It magnifies power. The moral order is subsumed to the aegis of the movement in question and the power of the individual to change a force is obviated. A result of this is the movement takes on an aura of irreversibility. As is evident in the history of many contemporary intellectual trends, the great check on the reification of the system is the moral order. The tendency is for those who perceive the world in terms of an impersonal system to shun questions of value.

This stance generates its own problems, problems which face the system Teilhard has devised. There is no distinction between the self-seeker and the devotee and hence a way to distinguish between them. The difficulty is such that a distinction can be made only on a moral basis. Talent and character are not identified; indeed, they are separate realms. This problem is magnified in Teilhard's way of looking at things by the fact that his system is stretched to include a great duration of time. Man can look forward to a great many more errors and uncertain judgements. Even the knowledge of the developing new science is not an effective guarantee against misconception, let alone the more invisible poison of corruption. Given the possibility of honest error, it will continue to be impossible to distinguish between good and bad on the basis of knowledge.

The confidence Teilhard placed in the scientist--understood broadly as the man who is pursuing knowledge in the light of the evolutionary world view--seems surprising in light of his profound feelings in respect to the shortcomings of scientists today. It is ironic that the same people are at one and the same time the object of a plea for reformation and regarded as the hope of mankind. The point is raised not to disprove

Teilhard or claim that Teilhard is trapped in a contradiction; rather, the point is raised to show how tenuous, even in Teilhard's eyes, is a hope placed in the men themselves. Perhaps Teilhard avoided the difficult questions of individual morality because he saw the answers to them would prove all too painful. In the end, he avoids relying entirely on the vision of the individual scientist by falling back on the power of the evolutionary movement as a whole.

Teilhard does not insist on the justifying effect of the vision on every man. He turns to the process as a whole. As evolution unravels itself in the era of auto-direction it begins to select out improper thinking and behavior. Just as physical defects were removed by natural selection, physical defects will be removed by a process of humanized natural selection. It must be emphasized this is part of the process and not to be identified with the operation of critical judgement--although critical judgement is a part of it--discussed above. What is being alluded to here is the belief that as the process of evolution moves and the effects of judgements and personal activity become apparent, then the good and evil will become clear.

> "...we should not forget that the higher reflection rises and the more it builds up its strength (as a result of combined reflections); within the human mass, the more too, as an effect of organised vast numbers, do the chances of mistakes (both voluntary and involuntary) decrease in the Noosphere. Contrary to what one often hears said, a living system (provided we take it to be, as is the case with man, polarised towards a determined point) tends to correct and stabilize its progress to the extent that the two-fold faculty of foresight and choice arises within its elements at the same time as a sharper awareness of the end to be

attained."[153]

Evil will simply not be effective for evolutionary movement. It will be consciously weeded out or its congenital failing will direct its effects into an evolutionary blind alley where the rising movement will leave it behind. Life advances; death stops.

This concept of selection can be faulted on logical grounds. Evolution is declared to be a process under auto-direction. It follows that the new scientist who is responsible for directing evolution in general is, concommitantly, responsible for manipulating the selective processes. Yet, we are told, the scientist will act for the good because he is operating in a process of selection. Put more precisely, somehow or other the good activities of the past will always be selected by the present manipulator and passed on to future. The evil will at some point be selected out. Why? Evil will be selected out because it is out of harmony with the recognized end of evolution. But, one may ask, what happens if a corruption happens to fall in with the corrupt ends of a given manipulator? Or corruption destroys an opportunity for advance before it can itself be eliminated? Appealing to the efficacy of a directed proeess must lead us back to the man at the controls. If the idea of a direct process is to be preserved, the argument must again reach the level of the morality of the man with the vision. Again the reader is faced with silence.

Teilhard, however, does raise a positive argument to support the concept of a selective process operating on the intellectual level. He appeals to the law of mathematical probability. The idea seems to be that the more chances appearing in evolution, the more opportunity the good has to build itself. Or, put in the negative, good is bound to appear no matter how many forces are set against it. In any event, an appeal to mathematics here cannot be taken seriously. The whole idea of probability and chance is alien to a selective mechanism which is sustaining movement in a given direction.

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[153] Man's Place in Nature, p. 119.

The argument, as to a selective process actually operating in the phenomenological world cannot be closed by logic alone. Experience sometimes defies logic; or more often, gives meaning to its abstract bones. An examination of phenomena, in this case, historical experience, is in order.

In looking at history generally some credence can be given to the argument for a 'natural selection' of right and truth. Customs have changed. In this chronicle of changing mores we can discern changes appearing to have been for the better. These changes, moreover, can even be fit into a pattern. An example of change in custom which would conform to this idea is the changes in the punishments inflicted by the state upon those convicted of a crime. Cruel and inhuman punishments have been disappearing. Offenses judged as capital have dwindled. A science has been created to deal with the subject--penology. The causes of criminal behavior are certainly better understood, a fact which makes the extension of aid to the criminal meaningful. On the intellectual level it is certainly true the store of knowledge has expanded. Teilhard often points out that man is learning more, more rapidly, about the universe around him. But the facade these movements present begins to crumble under closer scrutiny.

In the case of changing mores, our judgements of them are necessarily subjective. We think our customs to be better. Moreover, as we look at changes in custom on a broad front, those movements we identify as advances become localized. Side by side with the movements which are apparently rising we are able to mark movement which appears to decline. There is much that could be said for the primitive mind which finds our impersonal mode of conducting warfare repulsive. For example, how well could we defend our present undertaking in Viet Nam to the eighteenth century mind which conceived of warfare in terms of stratagems carried out between two combatants, and where killing if not frowned upon, was at least of secondary importance. In the final analysis who can judge as to whether the kaleidoscope of changing customs constitutes an advance or not. The answer is lost in the tangle of moral judgement and the lives of the individuals.

In the area of the intellect, when the whole of the fabric of thought is considered, the advance in knowledge becomes likewise a local event. No one knows if reflective thinking has increased or decreased. Nor can anyone demonstrate the proposition that knowledge produces a concommitant intensification in the power of reflection. An argument can be made that knowledge tends to deaden attributes like intuition or sensitivity to concrete things which are vital to the development of thought. The point is these arguments are mute arguments. They cannot be demonstrated in experience. In fact, any demonstration of these arguments rests on an acceptance of the point of view which they are cited to prove. Teilhard says, everything depends on how one sees the events of history. The fact is the great abstract problem and myriad personal problems still remain.

Teilhard himself is engaging in an age-old pursuit. He is attempting to come to grips with existence itself and more especially his own existence. The questions he raises are perennial. They must be answered more or less by every generation and every man. Every generation and every man has proposed more or less satisfactory answers to them. But these answers form no apparent pattern of success. Have we come to grips with our existence as successfully as the Greeks or the men of the Middle Ages? Who today is the equal of St. Francis or of Plato? When we look around us we discover that despite the answers that have been offered through the ages the questions have not been resolved. Nor can we expect that they should have been. The questions of existence all men face are part of the human condition. In-so-far as and for as long as human nature demands that man define himself, the questions remain. The questions remain because they require a personal act to make the answers to them vital. All the wisdom of the ages does not substitute for the reflection of a single man on himself.

No mechanism has been constructed, abstract or concrete, to translate the advances of mankind into answers for the existential problems of the individual. Nor does Teilhard attempt to do so or pretend that such a mechanism exists. Every system and process must bow before the barrier between the mind and the movement. The mind alone can give something meaning and in the strictest sense, it can only make something meaningful to itself. The individual does not have much to say about the existential relationships evolution has spun around him; but, by the same token, evolution has little to say about the essential relationships which the individual will spin out of it.

For the individual, the eternal problem of overcoming his environment still remains. Awareness is still an individual struggle. Teilhard is still silent, as are all systems. Teilhard addresses himself to the problem in terms of the system, that is in evolutionary terms, only on the level of the collectivity.

Returning to the examination of that collectivity--man in evolution--the crux of the issue now appears. Ultimately Teilhard's argument must rise and fall on society's capacity to organize and pass on a change in will which is manifested in better activity on a collective basis. For all the confidence we may have in man's capacity for growth or the effect of the vision, in the end man must decide to act and follow this decision through to its consequences. All of what Teilhard emphasizes fades into and composes a background for the nexus of the future: the collective commitment of man to the idea of humanity.

The terms of the commitment of which Teilhard speaks are awesome. They are the same which Plato asked and Christ asked. Society, mankind--not just men--must cause social consciousness to supercede and thereby exalt self-consciousness. The whole body of man must focus on itself by focusing on its moral essence. The allusion to the human organism obscures the moment of the event. What Teilhard is in effect asking is that a body which is wracked by the independent activity of its members, cure itself by a supreme act of the will. Men must commit themselves to a central focus.

The City of God beckons man. Is not this essentially the call that Teilhard makes? History has shown this to be a difficult call for man to accept, no matter what the promise or what the terms. Does the fact

Teilhard sees this in terms of the City of the World becoming the City of God change the profoundity of the impact of the choice on the moral consciousness? It does not. The choice, no matter how rational or natural, is a difficult one. Or, at least, history indicates that it is. For men have rejected other visions and choices which were presented to them with similar conviction and couched in similar terms. In recognizing Teilhard has accomplished a great thing in bringing the Christian vision into the modern mind, must not we also recognize that this vision still remains as perplexing and as hard as ever. In fact, has not Teilhard made it more difficult to accept by substituting a hard, real force for a vague, romantic nostalgia? I believe so. Yet, the trauma of this transformation from inner-directed, self-serving consciousness to an outer directed, society serving consciousness receives little analytic attention from him.

The evolutionary transformation which Teilhard envisages is a transformation in a subdued key. No great trauma takes place. But this convenience is brought at the price of a significant assumption. Such evolutionary transformations are based on the concept that evolution is an organic whole and, therefore, essential analogies can be made among stages. The essential analogy in this case is that awareness per se is equivalent to moral consciousness in an embryonic state.

This analogy, couched in terms of the collective, is the twin sister of the "knowledge is equivalent to virtue" conundrum which was at the core of the idea of the new scientist.

The concept of social organization becoming more pervasive means, one way or another, that man is becoming more aware of it. If by this Teilhard meant man is becoming more aware of the fact of the existence of social organization then this would be indisputable. But Teilhard seems to mean man is becoming more aware of what social organization is. This is questionable. Yet Teilhard offers no evidence to support his contention. The idea that man knows more about what constitutes true social organization is an assumption. How much more audacious still is it to see the awareness of this vague quality as being a moral thing? The weight of the entire systematic apprehension of a becoming morality in evolution rests here.

But this issue is not discussed. Teilhard declares that we ought to accept this view, not on its own merits but on the merits of the metaphysics of evolution. The argument is that in light of his concept of evolution it is logical to draw a real analogy through developing social organization to a growing awareness and then to a speculative rising of moral consciousness of society. But the examination of his metaphysics presented in the last chapter showed that there was little reason to accept Teilhard's analogies on the strength of his metaphysics. Moreover experience tends to invalidate the proposition. Experience demonstrates comprehension, no matter what its form, is not on the same level as character. Character and comprehension interact to generate a style of living, but this relationship manifests their independence of one another. Because they are essentially different they are able to fertilize one another.

Referring to concrete experience, animals have been shown to be aware of at least some aspects of their existence. Yet no one pretends that they are moral. Thus, the distinctive quality of what is moral is implicitly recognized in our dealings on this level. On the human level, men are aware of many things, but as Teilhard himself points out, they often fail to see the moral content of these things. Thus, awareness per se cannot be taken as being identified with moral nature. The most that can be said about the relationship of the two is that awareness is a prerequisite for morality and as such, the peculiar quality of the awareness will contribute to the peculiar quality of the moral being in question.

There are two ways out of this dilemma open to Teilhard. The first is to posit that a coming transformation of man will make his moral being absolute. Such a transformation would make man a moral identity which operates absolutely according to what his awareness of the right dictates. Man would then be either a god or an automaton; either way he would be a categorical contradiction of all of what Teilhard has to say. This alternative is unsatisfactory. The other alternative is to appeal to the presence of God. God becoming closer in evolution will make man good. Teilhard would find this choice much more to his liking; as a matter of fact he flirts with it throughout his writings. But God is not seen as a deus ex machina; a God which is going to save man from himself. For if God were to perform such a service he would destroy freedom and annihilate morality. His entire work in evolution would prove to be self-defeating. Man would not be exalted in evolution. He would be humbled by it. Try as he might, Teilhard ultimately cannot guarantee to evolution a central moral advance. Without this guarantee the Teilhardian dream can become a nightmare.

In his writing, Teilhard recognizes a certain affinity between the community which he envisages and the totalitarian state of our day. "Monstrous as it is, is not modern totalitarianism really the distortion of something magnificent, and thus quite near to the truth?"[154] This affinity is based on the fact that both the Teilhardian and the totalitarian ideals see the individual submerged into the collective to the totality of his nature. Teilhard seeks to avoid the stigma attached to totalitarianism by pointing out that his vision is distinctive. The totalization he envisages is a totalization of the person and the force which impels and sustains this personal totalization is the absolute person, God. The question is: do these qualifications allow Teilhard to avoid the pitfalls of totalitarianism? The first distinction Teilhard makes, that his vision is one of a totalization of the person, is dismissable on the grounds the very same thing can be said for those theories which have supported totalitarian regimes in our century. The second distinction he makes, in which he alludes to the divine center, is more weighty. His conceptualization of a divine-centric system is unique. Certainly God would be capable of playing such a role. However, the distinction misses an important point. The God-center demands human cooperation. This, again, is the point that escapes Teilhard's analysis.

Teilhard cannot escape the stigma of totalitarianism as does Plato. Teilhard's vision lacks the Platonic insight into morality which saves Plato from the error of objectifying an inherently moral relationship, the relationship between God and man. Where Plato insists upon the integrity of the philosopher as the sine qua non of the entire process, Teilhard insists only that man give himself over to a process which is already existent. As was pointed out above, the great difference between Teilhard and

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[154] Phenomenon of Man, p. 257.

Plato is that to Teilhard moral integrity is an integral of the process rather than being a factor which is necessary to its existence. The tendency to subsume moral integrity to the primacy of an extra-personal process, I submit, leaves the door open to a totalitarian application in actual practice. Given the primacy of the process, could not a future reader of Teilhard assume, like Lenin, that after a total social organization is imposed, the process itself will insure that community and morality would certainly follow?

Totalitarianism comes about when a theory becomes an ideology; that is, when a theory becomes a belief system and takes on the aspect of religion and myth as it grasps the tools of political power. It is fair to note Teilhard was most sanguine about this happening in his theory. Many times his enthusiasm takes him beyond the point where he is speaking of a theory. Often, his raptures seem to sound like an ideology of the earth.

> "His (i.e. Man) is the exaltation not of egotistical autonomy but of communion with all others! seen in this light the modern totalitarian regimes, whatever their initial defects, are neither heresies nor biological regressions: they are in line with the essential trend of 'cosmic' movement."[155]

The basic contradiction of attempting to build something perfect out of imperfect materials leads to tragedy. The attempt to accomplish the impossible by reworking masses of human beings generates conflicts. As the attempts become more irrational, by a diabolic logic, the basic human material must be pulverized into a greater irrationality. If the commitment forthcoming from still independent persons is not sufficient to support the great structure of a total government the only recourse is to make these human beings dependent on the structure so that they must support it. Just as the required commitment was a total one, so too the dependence which substitutes for it must be total. Since this "total" goes to the very soul of man, what is being said is that the state must substitute itself for the soul of its members. Destroy the rational structure of individual lives and then there will be no other choice open to them but to search out the state to provide a structure so that they may have the order which is necessary to living. Thus the impossibility of building a total community leads to the generation of the dark side of the totalitarian state. As soon as absolute dependence is substituted for independent interaction, the means productive of this end become acceptable. Alienation rather than personalization becomes the style of the state.

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[155] The Future of Man, p. 46.

Teilhard saw his mission in terms of generating a recognition of the significance of man, or the human group, by both science and religion. I believe it must be said, in turn, that Teilhard must recognize the human phenomenon. Teilhard must account for what it means to be human, the fears and the weaknesses, the imperfections and the limitations, as well as the promise and the triumph of human life. Teilhard must not only subject man to an overview but also view that perspective from the narrow windows out of which human beings see their own lives in relation to the phenomena which surround them.

But his narrow metaphysics do not give him the foundation necessary to support insight into humanity. No matter how sensitive he may be to humanity, and his work sparkles with evidence of this, it is all ornamental if his system is not open to such a sensitivity. Sensitivity and insight deepen the understanding a perspective provides; they are far less effective in covering up deficiencies in perspective. Theoretically, what the theory of evolution presents is a concept of organization. What is needed is a theory of society and community as well.

In my view, the essential weakness in Teilhard's social theory proceeds from the metaphysical problem inherent in an exclusively evolutionary perspective. As was noted above, the Teilhardian ideal for political life is a total community. But evolutionary theory used the concept of organization rather than the idea of community. Evolutionary theory loses its capacity to comprehend the idea of community by emphasizing the idea of organization so strongly. Teilhard, in order to carry his idea of organic evolution, tends to blur the distinctions among the ideas of organization, community, and society and make organization a synonym for all three. This produces a confusion which is dangerous in-so-far as it obscures real problems.

Society is the broadest and most abstract category. It is the totality of interactions within a delimited group. The term "political society" is used to denote the interactions in a group which is delimited by being identifiable as political or having to do with the state. Organization may be defined as a group which is acting for a defined goal. The group is orientated to that goal and so is arranged in such a way as to make that goal most easily attainable. The goal is outside the group as such, and the commitment of the members of the group may be for individual purposes other than the goal. Their essential commitment to the group is as a resource; whatever personal commitment to the group they may make is of secondary import to the nature of the group's existence. The purpose of organization is to produce. The community, on the other hand, is a group where the individual members make a personal commitment to one another with intent of realizing some personal benefit from the establishment of such relationships. Whereas the goals, individual or collective, in an organization are external; the goals in a community are internal. The goal of all communities is to develop in one way or the other the person. In an organization, the good generated is an external product. In a community, the good arises in the act of the relationship itself.

At this point we arrive at the last distinction between moral and not moral. The community has as its object a moral good. The organization does not. Teilhard, by obscuring the distinction between community and organization, has obscured the distinction between person and product, and, hence, has again on this new level eroded the concept of morality. Since his stated object is the humane development of man, he is caught in a basic contradiction. His contradiction is inherent in his use of the theory of evolution as a universal principle. The effect of this error is clear on this level.

The natural grouping for evolutionary theory is organization, because evolutionary theory emphasizes "products", in the sense of a constant generation of species to insure survival or advance, and, in Teilhard's translation, "external" ends. The process emphasizes production. Comprehension of an internal realization is outside of the comprehension of an evolutionary system itself, ultimately because such a realization would be immediate, a state of being, which contradicts the idea of becoming which is at the heart of the concept of evolution. I find this manipulation to be basically unsatisfying.

I believe if Teilhard had followed another, more difficult path, his synthesis would have been more satisfying. As I said in the last chapter I believe a synthesizing of the two dominant scientific theories, the theory of evolution and the theory of relativity, would yield the possibility of constructing a viable theory around the ideal of community. In terms of man, a combination of the two theories could develop the idea of an interaction among many human centers in a given direction for the development of their persons. I believe this is the path which thought must follow in the coming years because such a synthesis is metaphysically necessary to the philosophy of science. Such a path could lead to a restoration of the idea of community which holds the promise of a possible resolution of the problem of man in a mass society. The restoration of the idea of community could lead to a resolution of the problem of absolutism and individualism which have gathered throughout the modern age and have, in our century, proven so trying for political thought.

Chapter VII

With the end of the last chapter, I concluded my examination of Teilhard's approach to politics. In this chpater, I intend to first summarize the argument that has gone before and then conclude with a discussion of Teilhard's place in modern political thought.

In Chapter I, I introduced Teilhard as a writer and discussed the problem his multisided style presents the analyst. I emphasized this aspect of Teilhard's work because I believe that it is necessary to the understanding of Teilhard's thinking on society to grasp the intensity of his personal commitment to an active, total development of humanity. It is this understanding which justifies the interpretation of Teilhard from the standpoint of political theory.

Beginning with Chapter II and ending with Chapter IV, I presented an overview of Teilhard's thinking on society. Initiating the discussion I made the point that it is Teilhard's object to restore the confidence of mankind in its power to develop itself. He seeks to do this by showing that man is called to participate in an evolutionary process which is destined to bring him face to face with God. The crux of the argument which Teilhard presents for seeing evolution as being directed toward God is that evolution forms an organic whole with Christ as its central axis. Evolution itself represents a rise in consciousness. The idea of evolution as an organic whole allows Teilhard to unify all phenomena and to direct it toward Christ. Moreover, it serves as a basis for Teilhard's analogies.

Teilhard organizes evolution into a series of broad movements converging on one another. The model for the basic form of evolution is a cone. Evolution advances toward the apex of the cone in a rhythm of expansion and contraction bringing elements together to form ever higher manifestations of organic life. Advance is defined in terms of greater organization and increased consciousness. According to Teilhard, science and political organization are advancing to a point where they will coalesce. This particular point of convergence is of supreme importance. At this point, the State will have developed the organizational tools to unite mankind in the pursuit of a single goal and Science will possess the knowledge to direct mankind to the end of evolution. The Scientific State will unite mankind in the achievement of the culmination of organization and consciousness, a community of love.

In Chapters V and VI, I presented a critique of Teilhard's synthesis. The key to the synthesis is Teilhard's view that evolution is a great, organically connected movement of consciousness. But this idea is neither self-evident nor empirically verifiable. It rests on its capacity to explain the facts, a capacity which Teilhard's synthesis must demonstrate. But, as a matter of fact, Teilhard's synthesis rests on analogies which are justified by the concept of organic oneness. Thus Teilhard involves himself in a circular argument which cannot be admitted. As for standing on their own merits, Teilhard's analogies are constructed too broadly and without proper critical attention. This is especially true of the analogy upon which his theory of politics rests, the analogy from biological organism to social organization. The terms of this analogy force him to emphasize structural considerations while at the same time depreciating individuality. Organization and awareness define advance. Ultimately, when the question of morality is faced, his own logic drives Teilhard to the conclusion that knowledge equals virtue.

I believe this conclusion has no basis in history or in human nature.

I believe it can be entertained only at the expense of creating a void when it comes to issues of human responsibility. This disability is evident in Teilhard's perspective. Teilhard's view of the state lacks an ethical dimension. This weakness gives Teilhard's work a rigid and impersonal aspect, an aspect which casts a shadow of totalitarianism over his thought. It is here that I rest my argument.

I turn now to an evaluation of the poetic and personal dimension of Teilhard. A demand imposed on the critic by the nature of his writing itself.

The poetic quality of his style is a complement to the purpose of his writing. As has been shown, Teilhard's great desire was to effect a change in the reader himself. He was not seeking so much to present a new synthetic interpretation of the universe for the readers' contemplation as to inspire the reader with a new way of thinking. It was not enough for Teilhard to renew a reader intellectually, he wished to renew him totally, in deed as well as in thought. The kind of impact Teilhard was seeking goes beyond a systematic treatise. This impact must be examined.

The thrust of this examination must be subjective. The impact of Teilhard's writing on his readers must be ascertained. This is necessary because this is where his thought is directed. My judgement will be based on the following considerations: (1) the relevency of his insight and (2) the power of his appeal to the imagination to suggest signficant new ways of thinking. In passing on the relevency of his insight, the judgement will be limited to answering the question: Did Teilhard come to grips with essential political problems?

Teilhard addresses himself to three main problems: the unification of thought, the purpose of life understood broadly, and the function and organization of human endeavor. He saw these problems as being intertwined and, thus, the solution to them as being a total one. In Teilhard's eyes the nature of the difficulties in these particular areas mirrored a general problem at the base of all three: fragmentation becoming disharmony becoming discord. Such disorder is unnatural. Since irrationality is what is unnatural raised to the intellectual plane, such disorder is also irrational. The great problem, then, is to restore order by restoring a rational apprehension of the universe which, significantly would advise human activity. Teilhard's answer to the modern problems as we have seen was a great synthesis: a synthesis in two dimensions, unifying all thought and unifying thought with action.

Teilhard seeing that science has brought us a new age just as Christ had, is repeating St. Paul's admonition: "Put on the new man." The change in man must match the change in age. It is this change Teilhard is trying to effect. Although he has presented a synthesis, he knows the full development of such a synthesis must come later. Teilhard has other purposes in presenting his synthesis. First, the synthesis is to provide man with a rationale for faith in his work. This is necessary if man is to undertake the task. Second, he is providing man with a working hypothesis. This will be the foundation for the new synthesis. I have taken Teilhard's synthesis as a working hypothesis for politics and critiqued it. To complete my evaluation I will examine its usefulness as a working synthesis and then close by making a comment on Teilhard's success in accomplishing the first goal mentioned above.

In examining the works of the major writers of the last two centuries, concern for the meaning of history, for the relationship of science and scientific thinking to politics, for the purpose of political life, and for the relation of elite to mass will be discovered. Teilhard certainly addresses himself to these issues. He takes a distinctive place in this dialogue. If nothing else, Teilhard can be said to have chosen timely topics. But relevency requires more. Relevency demands that one offer viable solutions to the problems under discussion. This requires not only a sensitivity to the problems themselves but also a sensitivity to the way in which they are discussed, since many difficulties are generated in the discussion itself.

Contemporary political thought is characterized by nothing so much as a loss of a sense of rational dialogue. Political thought seems to have lost a core structure which provides the necessary definition for argument and, hence, the capacity to formulate and debate general theories of politics. This problem can best be seen in an examination of the development of political thought in the last century.

Hegel is the fountainhead of contemporary thought; the catalyst which gives the thinking of the "moderns" such as Rousseau and Locke the peculiar twist which places them in the context of our times. Hegel introduced to thought the concept of the trancendental becoming in time. History was working to the realization of the ideal by thrusting the concrete into the existential realm of the ideal. This was being accomplished by a dialectical process; a real dynamic movement in time, the terms of which corresponded to the terms of the logic by which we come to understand the ideal. The outstanding characteristic of the dialectical mode was the capacity to comprehend and synthesize opposites. Using the tool of the dialectic to follow out the basic metaphysical assumption of the transcendental in time, Hegel accomplished an all-embracing synthesis. This synthesis was the high water mark of metaphysical idealism and, in a sense, its end point. Hegel's intuition had caught the thrust of the rising mass-man and the combination of science and technology. His thought anticipates the drive toward totality. Hegel recast thinking. The dialogue was no longer an abstract critique, it was part of the essential being of phenomena. The dialogue among thinkers was an essential part of the process of thrusting the concrete into the ideal. Couched in terms of reality, lost in the vacuum of the dialectic, metaphysical argumentation loses its critical meaning. There is no longer such a thing as a critique of internal validity nor a rational discussion of the visionary first principle. The critical function devolves to the empirical world and hence to science.

For all of the strange usage of the word "science", Marx cannot be faulted for his insight into Hegel. His feeling as to where Hegel's style of thought had placed the need for a rational critique was true. I believe this point sets Marx off from the bulk of nineteenth century thinkers and is the primary reason why he has endured. Marx met the Hegelian wave squarely, establishing a different metaphysic on the historical foundation. The great distinction between Marx and Hegel is that the emphasis falls on different poles; in Hegel, on metaphysics, in Marx, on history. Hegel relied on the capacity of the vision to explain history in order to justify his thought; Marx relied on the facts of history to justify his analyses.

History seems to have let both of them down. In the case of Hegel, the ambivalence of history would allow it to serve as mistress to a hundred such visions. That is to say that there are historical events which make

Hegel's vision plausible and, provided one is allowed to cut away points which are embarrassing, could form an adequate support for it. History is more than amenable to allowing some metaphysical perspective to put its fact in order. But, the metaphysics, whatever it is, must justify itself. This is a task which is difficult for Hegelian metaphysics in so far as it has done away with metaphysical argumentation. It is noteworthy that this is the same problem which attends Teilhard's use of evolution. Marx is undercut by history in an even more direct fashion. Tied as the Marxian analysis is to the historical event, facts cannot be ignored. Historical misunderstandings in Marx's writings are debilitating; the fact that his scientific history has proved to be a poor foundation for prediction is destructive.

Besides affecting the durability of the thinking of Marx and Hegel, the emphasis they placed on history has had a direct impact on the development of political theory itself. Beginning with the Greeks, the core concept around which political thought formed was the idea of the state. In the nineteenth century, history usurped this role. The idea of the state was reduced to a historical datum by Hegel and relegated to the superstructure resting on more basic movements by Marx. This has proved to be a coup de main of the first order. Political theory lost its unique focal point in this process which, in turn, has meant that it was more prone to be submerged in other considerations. As a result, politics has lost its primacy among social considerations and political thinking has tended to become fragmented and more orientated to particular issues. These two effects are most pronounced in the scientific politics of the twentieth century.

Science has been applied to politics in two ways. The first to become significant was Marx's application: the study of history advised by a philosophy of science. The use of the term "science" was general and abstract. This particular mode was followed by Comte. For reasons discussed above, this application of science to politics did not stand the rigors of empirical test. Failing in this respect meant, basically, the philosophy of science remained an abstraction to the Marxian and Comtean world view, becoming in the end almost a religious symbol. This form of union, naturally enough, failed to satisfy those who wished a rigorous and empirical science of politics. To them, and to most scientists, a meaningful union of science with the study of social life necessitated a great deal more than the assumption of a common philosophic posture.

Arising out of the empirical orientation introduced to politics by Locke and given its first significant statement as such by Benthem, behavioralism has become the scientific politics of the twentieth century. This new scientific politics is in an entirely different key than either that of Marx or Comte. The datum for study is no longer history but human behavior. The significant adaptation to politics is not a philosophy of science but the empirical method. Behavioralism sees proper methodology as the key to making the study of politics scientific. The unification of all studies under the aegis of science is to be by virtue of a common methodology. The effect of this form of union has been to accentuate the fragmentation of political theory. The approach has neither provided a theoretical framework to substitute for the metaphysical framework which has been rejected, nor solved the theoretical problems which politics presents to it. Finally, because of its failure to generate a theoretical structure, behavioral politics has not bridged the gap separating politics from other social sciences, let alone the natural sciences. Far from going in the direction of a total view, political theory has become more specialized. As it has become specialized, it has grown out of touch with political life. It has become impotent in the face of political problems. This, in turn, has caused political thinking to become intellectually frustrating.

Without metaphysics or a theoretical structure, questions pertaining to the meaning of existence have proven impossible to answer. Translated into terms of twentieth century politics, man has been unable to fix his position in a rapidly expanding universe which, by that very fact, is putting a great deal of pressure on him. Unable to discover himself, man is unable to establish a viable pattern of relationships. He cannot provide for a meaningful interchange if he does not have adequate knowledge of that which is to form the foundation for interchange. He cannot even decide how to structure the roles men are to play in the bureoning organizations which surround them. Politically, the existential problem of self becomes the problem of elite and mass; the problem of the pernicious contradiction of impersonal social organizations. Teilhard meets these problems directly and his writings offer some unique suggestions for their resolution.

Teilhard's approach goes straight to the crux of the problem of a focus for political theory. He has emphasized the role of organization in evolution. For all the weakness of his approach discussed in the last chapter, Teilhard does establish a concept of political relationships as a prime factor in the realization of his metaphysics. The conceptualization, moreover, has real concrete antecedents. In Teilhard's eyes, there are concrete political problems to resolve. Teilhard has restored the relationship of metaphysics to political theory which is found in Plato and Aristotle. The essential relationship is the same, even though the metaphysic may be different. The thrust of this restoration of the relationship of state to metaphysics which has been at the heart of the development of political theory since the Greeks, can be seen clearly in Teilhard's development of the relationship of science to social thinking.

Teilhard meets the intellectual problem of specialized fragmentation in the sciences by suggesting unification on the level of theory and law. Hitherto, the flirtation of contemporary thinking on society with science has been on the level of method. There are two important reasons for this. First, the success of science has been attributed to its method. Our century has been truly fascinated by science; by the apparently inexorable growth of this body of knowledge and its almost routine opening up of new spheres of technical opportunity. The fascination, the point must be stressed, is with the thing itself; great scientists like Einstein, Plank, and Heisenberg have enjoyed relatively little hero worship. The imaginative genius of such great scientists is ignored for the fact of the discovery itself and the amazing cumulation of knowledge. Moreover, the method is seen as generating new theories through its painstaking collecting and ordering of information. That this is, in reality, not true, that the great discoveries in science come when a great mind discovers flaws in the body of knowledge and its ordering principle, matters not at all. The methodical image that science presents to the world at large is what counts.

Second, the Benthamite tradition which provided the locus for the germination of a scientific social science was possessed of a very deep mechanical bias. Benthamism is rooted in an exaggerated sensationalist psychology which reduces man to a mechanical respondant to the external world. Morally, it depends on a mechanistic, would be ethical standard--the principle of utility--and, finally, it tends to see society as a reflection of the Newtonian world model. Given the bias of Benthamism and the Newtonian bias of science in the early part of the century, it was natural the political scientist would attach himself to the mechanism, rather than the substance of scientific thought. These prejudices, I feel, were aided by several other fortuitous factors. One, it is much easier to learn and apply a method than it is to inform oneself of the substance of thought and engage this substance creatively. Also, method promises concrete production while intellectual apprehension is a twilight struggle whose outcome is not clear. Finally, method corresponds to the pragmatic inclination of the age. All of which I think explains the continuing popularity of "scientific" politics despite the upset of the Newtonian perspective. The honeymoon cannot last forever. Scientific politics will soon have to re-evaluate itself; ironically enough, most probably because natural science will demand such re-evaluation.

Teilhard, I believe, in his general conception of a unified science has elicited several points which are especially applicable to the problems of scientific politics. Teilhard is saying, in effect, if thought is to be unified, it must be unified in a single critical structure. It is not necessary to gather the same information or to gather information in the same way, but it is necessary to bring the information together to bear on the understanding of existence. Teilhard's focal point is not at the informational level as with the behavioralist, nor is it in the vague realms of mood as with Marx. His focal point is a definite, substantial set of ideas. Ideas have the advantage of being able to broaden their scope through abstraction, while at the same time maintaining the quality of their relationships with more concrete data. Thus, a set of propositions could feasibly provide both the requisite common ground among disciplines and substance, or definite meaning, to data found in various areas of knowledge. Theory is not determined; it is determining.

Besides organizing thought in such a way as to provide a coherent world view, a unification of theory like that Teilhard proposes would provide great benefits to the special disciplines which operate in its framework. Cross-fertilization would be facilitated. The vehicle of a common theory would provide easy transport for the insights of one discipline into the thinking of another. Moreover, a common theory would provide a common ground on which the thinking of many disciplines could dialogue. A common theory, in short, would broaden the scope of all special disciplines without denying the special nature of their individual existences. Teilhard underlines these effects by his own thinking on the nature of politics and society. If nothing else can be said of Teilhard, it can be said that he has pointed the way to an imaginative use of science in politics. His use of the law of evolution is not only provocative as to the use of ideas; his example of bold speculation should encourage a similar attitude in the practitioners of a discipline which sorely needs the infusion of such vision.

Teilhard saw his work as being directed toward a necessary restoration of man as the central phenomenon in the universe. The assertion of the pre-eminence of man in the universe is constant and emphatic in his writings. Characteristically, Teilhard chose a novel route to the accomplishment of this end. Man has been reinstated by virtue of Teilhard's vision of spirit becoming in matter.

Teilhard's vision is unique to mysticism. Mystics have almost universally sought to transcend matter by withdrawing from it. This impulse was characteristically rooted in a perspective which was reality in terms of an essential dualism: spirit and matter. The spiritual realm was proclaimed the highest reality in a juxtaposition with the material realm. In any event, a mystic calling upon man to embrace the material world because it was the natural tabernacle of the spirit is a rare thing indeed. This Teilhard has done and done with authority. Teilhard as mystic is certainly convincing; his apprehension has opened, I feel, entirely new vistas of approach and insight to those inclined to follow the mystical way of seeing. He has brought the ancient art into the twentieth century. This feat has a significance which extends beyond mysticism. The vision states emphatically that humanity can be preserved and extended not by negating, but rather by going through science.

In the warmth of the vision even the laborious precision of technology need not be cold. Teilhard sees a way to orient technology to man rather than to production without destroying the organization and attention to detail which are essential to its nature. Although Teilhard's near casualness in regard to the problems involved in humanizing technology disconcerts this reader and even though his bridge between humanism and technocratism seems of too hasty and delicate construction for that gap, still one must admire the attempt. Moreover, the beholder must recognize, I think, the value in that attempt for those who will in the future take up the challenge of the separation of technology from humanism. Teilhard's prodigious effort has, in general, clarified the problem; in its successes, it has provided material upon which to base further attempts, in its failures, it has provided some necessary warnings. Teilhard's achievement is to show that an essential conflict between technology and what is humane does not exist; technology can be humanized.

Focusing on the study of politics, Teilhard directs us to a study which is both ethical and behavioral. He forcefully, too forcefully in my judgment, dissolves the differences between the two by identifying behavior and ethics as being one and the same thing in the great movement toward Omega. Though Teilhard's tendency to disregard the prior moral commitment that is necessary to make the two one is disquieting, he does outline a direction a would be political scientist could take in humanizing his study of man. It should be noted the weight of Teilhard's grand design for a science of man rests here. It is the social sciences become sciences of human energetics which are to place the more humane man in control of his scientific environment. It is significant that Teilhard de Chardin, a natural scientist, points to the responsibility of the social sciences to be true to their humane tradition. He looks to the social sciences to lead all of the sciences into a more humane era in the same epoch that most social scientists are bent on discovering from the natural scientists how they can become more scientific. The fact Teilhard has entered a strong, well-reasoned plea on behalf of a humane soul for science is a substantial accomplishment in itself; an accomplishment which should be attended to by all those who debate the future of politics. It is ironic and tragic, as Matson testifies in the Broken Image, that those of us who, as social scientists, have fallen heir to the tradition of the humanities and who by vocation study man, have been the last to become aware of the importance of a humane perspective for the sciences. As Teilhard would add, more tragic still is that, because we are not aware of the importance of this perspective, we are unaware of our role. The role of the social scientist is a special instance of the function of all mankind, that is to assert themselves in the world, not against it. This is the same challenge Teilhard met so well in his own life and in the body of his works.

In so far as Teilhard has laid down by his example and his writing new directions for social science, I believe his work to be valuable for political science. He has given good lead, I think, in the basic commitment social science should make, in providing a general focus for the work attendent upon that commitment, and in showing the way to a necessary comprehension of science in this work. In these respects I find Teilhard most pertinent to the advancement of the study of society and hence the growth of political theory. I hope my work has shown how Teilhard can contribute to further growth. But for all the implications of Teilhard's work for the social sciences, the potential it represents remains largely untapped. In fact, only in the area of religious thought has his potential been extensively realized. We must turn to this area, then, to make a judgment as to how successful Teilhard was in inspiring men to renew themselves.

The effect of Teilhard's accomplishment has been striking. His influence has initiated a revolution in Catholic thinking which is still gathering momentum. Since 1955, Neo-Scholasticism with its static, juridical conceptualization has been giving way to a more elastic theology emphasizing the idea of a pilgrim church. This new theology has roots in Christian existentialism for sure, but its special character is derived from the Teilhardian idea of a becoming community. It is the concept of community and Church which sets Rahner and Kung off from the generation of existentialists which preceded them. This new dimension they owe to Teilhard de Chardin. The theme I mention here has been developed by many commentators.

> "In the search for understanding of that milieu out of which the human spirit has risen and toward which it evolves, Teilhard de Chardin will be the Dante who will guide us from the purgatory of the present to the reality of faith in the transcendent future. The spirit of any viable future Christian philosophy or theology lies in a creative blend of the mysticism and social sensitivity of Teilhard, Altizer, and Hamilton."[156]

> "Pierre Teilhard de Chardin has been called one of the most powerful thinkers of our time. It cannot be denied that in certain Catholic and Protestant circles his growing influence can scarcely be overestimated."[157]

> "Teilhard's work has caused a rapidly growing international spiritual movement of an ecumenical character..."[158]

There is some paradox in all of this. Teilhard can be most faulted, I believe, for failing to engage the moral and ethical questions and, as a result, confusing the resolution of them with the solution of technical and intellectual difficulties. Yet, in surveying this rather brief list of his achievements, I find I must say he has, ultimately, achieved what he had set before himself: to provide a base for a moral change in man. By main force, as it were, he has contributed to the restructuring of the twentieth century ethic. For the Catholic, the Christian, the humanist who must confront the modern world, Teilhard has provided a new perspective. He has given those who believe in humanity a new will to action, a new will to search and to assert control over the forces which are driving us deeper into the scientific age. In a sense he has given man a new ethic: not an ethic of formal propositions to be sure, but an ethic of hope in the capacity of man to struggle with the problems which challenged Teilhard and now pass on to us; to struggle with them and overcome them personally as Teilhard did. This new ethic of which I speak is generated in a meeting of the imagination more than of the minds. This, I must caution, is stated as a fact; it is not an apology. Teilhard has struck to remove barriers to thinking, not to direct our thought. In saying Teilhard touches the imagination, I am saying he has struck the vital point as he sees it. He has, I think, for many readers opened up the horizon.

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[156] John Charles Cooper, The Roots of the Radical Theology, (Philadelphia, Pa.: The Westminister Press, 1968) p. 156.

[157] Phillip Hughes, Creative Minds in Contemporary Theology, (Grand Rapids, Mich.: William B. Erdmans Publishing Co., 1966) p. 407.

[158] *Ibid*., p. 447.

He cannot be ignored: what he says is too fresh, too central to so many problems, too cogently put. I find the mind of the reader is impelled to meet his. The confrontation is rewarding in new insight. No matter if one accepts or rejects his arguments, one who has engaged his arguments actively has been drawn into a new sphere. The reader's view of the world is not the same; it has been renewed. For the teacher and for the student there can be no greater event.

Biographical Note

Donald Wallace Hopps was born in Medford, Oregon on August 28, 1941. His parents are Harold George and Emile Dale Hopps formerly of San Francisco and now of Seattle. Donald graduated from Seattle Preparatory School in 1959, attended the University of Notre Dame, and graduated from Seattle University in August, 1963.with a B.A. He majored in Political Science and further attained an M.A. in that subject from the University of Washington in the spring of 1965. He married Kathleen Marie Baginski of Chehalis, Washington in August, 1966. They have one son. He has been a member of the faculty of Idaho State University, Department of Government, since the fall of 1967 and holds the rank of instructor.